

# Scepsis Scientifica:

OR,

Confest *Ignorance*, the way to *Science*;

In an *Essay* of

The Vanity of DOGMATIZING,

AND

CONFIDENT Opinion.

WITH

A REPLY to the EXCEPTIONS

Of the Learned

THOMAS ALBIUS.

By JOSEPH GLANVILL, M.A.



L O N D O N:

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TO THE  
ROYAL SOCIETY.

Illustrious Gentlemen,

**A** *THE name of your Honorable Society  
is so August and Glorious, and this  
trifle to which I have prefixt it, of  
so mean, and so unsuitable a quality; that*

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## An Adress to the

'tis fit I should give an account of an action so seemingly obnoxious. And I can expect no other from those, that judge by first sights and rash measures, then to be thought fond or insolent; or, as one that hath unmeet thoughts of himself, or YOU. But if a naked profession may have credit in a case wherein no other evidence can be given of an intention; I adventured not on this Address upon the usual Motives of Dedications. It was not upon design to credit these Papers (which yet derive much accidental Honour from the occasion.) Nor to complement a Society so much above Flattery, and the regardless air of common Applauses. I intended not your Illustrious Name the dishonour of being Fence against detraction for a performance, which possibly deserves it. Nor was it to publish how much I honour You; which were to fancy my self considerable. Much less was I so fond, to think I could contribute any thing



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to a Constellation of Worthies from whom the Learned World expects to be informed. But, considering how much it is the interest of Mankind in order to the advance of Knowledge, to be sensible they have not yet attain'd it; or at least, but in poor and diminutive measures; and regarding Your Society as the strongest Argument to persuade a modest and reserved diffidence in opinions, I took the boldness to borrow that deservedly celebrated name, for an evidence to my Subject; that so what was wanting in my Proof, might be made up in the Example. For If we were yet arriv'd to certain and infallible Accounts in Nature, from whom might we more reasonably expect them then from a Number of Men, whom, their impartial Search, wary Procedure, deep Sagacity, twisted Endeavours, ample Fortunes, and all other advantages, have renderd infinitely more likely to have succeeded in those Enquiries; then the sloath, haste, and

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*and babble of talking Disputants; or the greatest industry of single and less qualified Attempters? If therefore those (whom, I am in no danger of being disbelieved by any that understand the world and them, if I call the most learned and ingenious Society in Europe.) if they, I say, confess the narrowness of humane attainments, and dare not confide in the most plausible of their Sentiments; if such great and instructed Spirits think we have not as yet Phænomena enough to make as much as Hypotheseis; much less, to fix certain Laws and prescribe Methods to Nature in her Actings: what insolence is it then in the lesser size of Mortals, who possibly know nothing but what they glean'd from some little Systeme, or the Disputes of Men that love to swagger for Opinions, to boast Infallibility of Knowledge, and swear they see the Sun at Midnight!*

*Nor*



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*Nor was this the only inducement to the dishonour I have done you in the direction of these worthless Papers; But I must confess I design'd hereby to serve my self in another interest. For having been so hardy as to undertake a charge against the Philosophy of the Schools, and to attempt upon a name which among some is yet very Sacred, I was lyable to have been overborne by a Torrent of Authorities, and to have had the voyce of my single reason against it, drown'd in the noise of Multitudes of Applauders: That I might not therefore be vapour'd down by insignificant Testimonies, or venture bare reasons against what the doating world counts more valuable, I presumed to use the great Name of your Society to annihilate all such arguments. And I cannot think that any, that is but indifferently impudent, will have the confidence to urge, either the greatness of the Authour, or the number of its Admirers in behalf of*

(a)

that



An Adress to the

*that Philosophy, after the ROYAL SOCIETY is mention'd. For though your Honourable and ingenious Assembly hath not so little to do, as to Dispute with Men that count it a great attainment to be able to talk much, and little to the purpose: And though you have not thought it worth your labour to enter a profess'd dissent against a Philosophy which the greatest part of the Virtuosi, and enquiring spirits of Europe have deserted, as a meer maze of words, and useles contrivance: Yet the credit which the Mathematicks have with you, your experimental way of Enquiry, and Mechanical Attempts for solving the Phænomena; besides that some of you (to whose excellent works the learned world is deeply indebted) publickly own the Cartesian, and Atomical Hypotheseis; These, I say, are arguments of your no great favour to the Aristotelian. For indeed that disputing physiology is of no accommoda-*  
*tion*

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*tion to your designs; which are not to teach Men to cant endlessly about Materia, and Forma; to hunt Chimæra's by rules of Art, or to dress up Ignorance in words of bulk and sound, which shall stop the mouth of enquiry, and make learned fools seem Oracles among the populace: But the improving the minds of Men in solid and useful notices of things, helping them to such Theories as may be serviceable to common life, and the searching out the true laws of Matter and Motion, in order to the securing of the Foundations of Religion against all attempts of Mechanical Atheism.*

*In order to the Furtherance (according to my poor measure) of which great and worthy purposes, these Papers were first intended. For perceiving that several ingenious persons whose assistance might be conducive to the Advance of real and useful Knowledge, lay under the prejudices of Education and Customary Belief; I thought that*



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*the enlarging them to a state of more generous Freedom by striking at the root of Pedantry and opinionative Assurance would be no hinderance to the Worlds improvement. For Such it was then that the ensuing Essay was designed; which therefore wears a dress, that possibly is not so suitable to the graver Geniusses, who have outgrown all gayeties of style and youthful relishes; But yet perhaps is not improper for the persons, for whom it was prepared. And there is nothing in words and styles but suitability, that makes them acceptable and effective. If therefore this Discourse, such as it is, may tend to the removal of any accidental disadvantages from capable Ingenuities, and the preparing them for inquiry, I know you have so noble an ardour for the benefit of Mankind, as to pardon a weak and defective performance to a laudable and well-directed intention. And though, if you were acted by the spirit of common*  
*Mortals,*



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*Mortals, you need not care for the propagation of that gallantry and intellectual grandeur which you are so eminently owners of, since 'tis a greater credit, and possibly pleasure, to be wise when few are so; yet you being no Factors for Glory or Treasure, but disinterested Attempters for the universal good, cannot but favourably regard any thing, that in the least degree may do the considering World a kindness; and to enoble it with the spirit that inspires the ROYAL SOCIETY, were to advantage it in one of the best Capacities in which it is improveable. These Papers then (as I have intimated) having been directed to an End subordinate to this, viz. the disposing the less stupid Minds for that honour and improvement; I thought it very proper to call up their eyes to you, and to fix them on their Example: That so natural Ambition might take part with reason and their interest to encourage imitation. In*

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*order to which, I think it needless to endeavour to celebrate you in a profest Encomium; since customary Strains and affected Juvenilities have made it difficult to commend, and speak credibly in Dedications; And your deserts, impossible in this. So that he that undertakes it, must either be wanting to your merits, or speak things that will find but little credit among those that do not know You. Or, possibly such, as will be interpreted only as what of course is said on such occasions, rather because 'tis usual, then because 'tis just. But the splendour of a Society, illustrious both by blood and vertue, excuseth my Pen from a subject, in which it must either appear vain, or be defective. I had much rather take notice therefore, how providentially you are met together in Dayes, wherein people of weak Heads on the one hand, and vile affections on the other, have made an unnatural divorce between  
being*



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*being Wise and Good. These conceiving Reason and Philosophy sufficient vouchees of Licentious practices and their secret scorn of Religion; and Those reckoning it a great instance of Piety and devout Zeal, vehemently to declaim against Reason and Philosophy. And what result can be expected from such supposals, That tis a piece of Wit and Gallantry to be an Atheist, and of Atheism to be a Philosopher, but Irreligion on the one side, and Superstition on the other, which will end in open irreclaimeable Atheism on both? Now it seems to me a signality in Providence in erecting your most Honourable Society in such a juncture of dangerous Humours, the very mention of which is evidence, that Atheism is impudent in pretending to Philosophy; And Superstition sottishly ignorant in phancying, that the knowledge of Nature tends to Irreligion. But to leave this latter to it's conceits, and  
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*the little impertinencies of humour and folly it is fond of: The former is more dangerous, though not more reasonable. For where 'tis once presumed, that the whole Fabrick of Religion is built upon Ignorance of the Nature of things; And the belief of a God, ariseth from unacquaintance with the Lawes of Matter and Motion; what can be the issue of such presumptions, but that those that are so perswaded, should desire to be wise in a way that will gratifie their Appetites: And so give up themselves to the swinge of their unbounded propensions? Yea, and those, the impiety of whose lives makes them regret a Deity, and secretly wish there were none, will greedily lissen to a Doctrine that strikes at the existence of a Being, the sense of whom is a restraint and check upon the licence of their Actions. And thus all wickedness and debauches will flow in upon the world like a mighty deluge,*

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deluge, and beat down all the Banks of Laws, Vertue, and Sobriety before them.

Now though few have yet arrived to that pitch of Impiety, or rather Folly, openly to own such sentiments; yet, I doubt, this concealment derives rather from the fear of Man, than from the love or fear of any Being above him. And what the confident exploding of all immaterial Substances, the unbounded prerogatives are bestowed upon Matter, and the consequent assertions, signifie, you need not be informed. I could wish there were less reason to suspect them branches of a dangerous Cabbala. For the ingenious World being grown quite weary of Qualities and Formes, and declaring in favour of the Mechanical Hypothesis, (to which a person that is not very fond of Religion is a great pretender) divers of the brisker Geniusses, who desire rather to be accounted Wits, than endeavour to be so, have been willing to accept

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## An Adress to the

Mechanism upon Hobbian conditions, and many others were in danger of following them into the precipice. So that 'tis not conceivable how a more suitable remedy could have been provided against the deadly influence of that Contagion, then your Honourable Society, by which the meanest intellects may perceive, that Mechanick Philosophy yields no security to irreligion, and that those that would be gently learned and ingenious, need not purchase it, at the dear rate of being Atheists. Nor can the proleptical notions of Religion be so well defended by the profest Servants of the Altar, who usually suppose them, and are less furnished with advantages for such speculations; so that their Attempts in this kind will be interpreted by such as are not willing to be convinced, as the products of interest, or ignorance in Mechanicks; which suspicions can never be deriv'd upon a Society of persons of Quality and Honour,

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nour, who are embodied for no other interest but that of the Publique, and whose abilities in this kind are too bright to admit the least shadow of the other Censure. And tis to be hoped, that the eminence of your condition, and the gallantry of your Principles, which are worthy those that own them, will invite Gentlemen to the useful and enobling study of Nature, and make Philosophy fashionable; whereas while that which the World call'd so, consisted of nought but dry Spinosities, lean Notions, and endless Alterations about things of nothing, all unbecoming Men of generous Spirit and Education; of use no where but where folkes are bound to talk by a Law, and profess by few but persons of ordinary condition; while, I say, Philosophy was of such a nature, and cloathed with such circumstances, how could it be otherwise then contemptible in the esteem of the more enfranchised and spright-



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ly tempers? So that your Illustrious Society hath redeemed the credit of Philosophy; and I hope to see it accounted a piece of none of the meanest breeding to be acquainted with the Laws of Nature and the Universe. And doubtless there is nothing wherein men of birth and fortune would better consult their treble interest of PLEASURE, ESTATE, and HONOUR, then by such generous researches. In which (1.) they'l find all the innocent satisfactions which use to follow victory, variety, and surprise, the usual sources of our best tasted pleasures. And perhaps humane nature meets few more sweetly relishing and cleanly joyes, then those, that derive from the happy issues of successful Tryals: Yea, whether they succeed to the answering the particular aim of the Naturalist or not; 'tis however a pleasant spectacle to behold the shifts, windings and unexpected Caprichios of distressed Nature, when

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*when pursued by a close and well managed Experiment. And the delights which result from these nobler entertainments are such, as our cool and reflecting thoughts need not be ashamed of. And which are dogged by no such sad sequels as are the products of those titillations that reach no higher than Phancy and the Senses. And that alone deserves to be call'd so, which is pleasure without guilt or pain. Nor (2.) have the frugaller Sons of fortune any reason to object the Costliness of the delights we speak of, since, in all likelyhood, they frequently pay dearer for less advantagious pleasures. And it may be there are few better wayes of adding to what they are affraid to waste, then inquiries into Nature. For by a skilful application of those notices, may be gain'd in such researches, besides the accelerating and bettering of Fruits, emptying Mines, drayning Fens and Marshes, which may hereby be effected,*



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*at much more easie and less expensive rates, then by the common methods of such performances: I say, besides these, Lands may be advanced to scarce credible degrees of improvement, and innumerable other advantages may be obtain'd by an industry directed by Philosophy and Mechanicks, which can never be expected from drudging Ignorance. But though those inquisitive pursuits of things should make out no pretence to Pleasure or Advantage; yet upon the last Account (3.) of Honour, they are infinitely recommendable to all that have any sense of such an interest. For 'tis a greater credit, if we judge by equal measures, to understand the Art whereby the Almighty Wisdom governs the Motions of the great Automaton, and to know the wayes of captivating Nature, and making her subserve our purposes and designments; then to have learnt all the intrigues of Policy, and the Cabals of States and King-*

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Kingdoms; yea, then to triumph in the head of victorious Troops over conquer'd Empires. Those successes being more glorious which bring benefit to the World; then such ruinous ones as are dyed in humane blood, and cloathed in the livery of Cruelty and Slaughter.

Nor are these all the advantages upon the Account of which we owe acknowledgments to Providence for your erection; since from your promising and generous endeavours, we may hopefully expect a considerable enlargement of the History of Nature, without which our Hypotheseis are but Dreams and Romances, and our Science meer conjecture and opinion. For while we frame Scheames of things without consulting the Phænomena, we do but build in the Air, and describe an Imaginary World of our own making, that is but little a kin to the real one that God made. And tis possible that all the Hypotheses



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these is that yet have been contrived, were built upon too narrow an inspection of things, and the phasies of the Universe. For the advancing day of experimental knowledge discloseth such appearances, as will not lye even, in any model extant. And perhaps the newly discovered Ring about Saturn, to mention no more, will scarce be accounted for by any Systeme of things the World hath yet been acquainted with. So that little can be looked for towards the advancement of natural Theory, but from those, that are likely to mend our prospect of events and sensible appearances; the defect of which will suffer us to proceed no further towards Science, then to imperfect guesses, and timerous supposals. And from whom can this great and noble Acquist be expected, if not from a Society of persons that can command both Wit and Fortune to serve them, and professedly ingage both in experimental pursuits of Nature? The  
desired

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*desired success of which kind of ingagements cannot so reasonably be looked for from any in the known Universe, as from your most Honourable Society, where fondness of preconceiv'd opinions, sordid Interests, or affectation of strange Relations, are not like to render your reports suspect or partial, nor want of Sagacity, Fortune, or Care, defective: some of which possibly have been ingredients in most former experiments. So that the relations of your Tryals may be received as undoubted Records of certain events, and as securely be depended on, as the Propositions of Euclide. Which advantage cannot be hoped from private undertakers, or Societies less qualified and conspicuous then Yours. And how great a benefit such a Natural History as may be confided in, will prove to the whole stock of learned Mankind, those that understand the interest of the inquiring World may conjecture. Doubtless, the success of those your great and Catholick Endeavours will*



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*promote the Empire of Man over Nature, and bring plentiful accession of Glory to your Nation; making BRITAIN more justly famous than the once celebrated GREECE; and LONDON the wiser ATHENS. For You really are what former Ages could contrive but in wish and Romances; and Solomons House in the NEW ATLANTIS, was a Prophetick Scheme of the ROYAL SOCIETY. And though such August designs as inspire your enquiries, use to be derided by drolling phantasticks, that have only wit enough to make others and themselves ridiculous: Yet there's no reproach in the scoffs of Ignorance, and those that are wise enough to understand your worth, and the merit of your endeavours, will condemn the silly taunts of fleering Buffoonry; and the jerks of that Wit, that is but a kind of confident, and well-acted folly. And 'tis none of the least considerable expectations that may be reasonably had of*  
your

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*your Society, that twill discredit that toyishness of wanton fancy; and pluck the misapplied name of the WITS, from those conceited Humourists that have assumed it; to bestow it upon the more manly spirit and generous, that playes not tricks with words, nor frolicks with the Caprices of froathy imagination: But imployes a severe reason in enquiries into the momentous concernments of the Universe.*

*On consideration of all which Accounts, I think it just you should have acknowledgments from all the Sons and Favourers of Wisdom: and I cannot believe it a crime for me to own my part of those obligations (though in a slender offering) for which all the thoughtful and awakened World is your debtour, no more then twas a fault to pay the tribute penny to Cæsar, or is a piece of guilt to be dutiful. And though perhaps I have not so well consulted the repute of my intellectuals, in bringing their weakneses and imperfections into such*

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discerning presences; yet I am well content, if thereby I have given any proof of an honest will, and well-meaning Morals; And I think, I can without repugnance Sacrifice the former, to an occasion of gaining myself this latter and better Testimony; of which disposition, I say, I am now giving an instance in presenting so Illustrious an Assembly with a Discourse, that hath nothing to recommend it, but the devotion wherewith tis offer'd them. And really when I compare this little and mean performance, with the vastness of my subject; I am discourag'd by the disproportion: And me thinks I have brought but a Cockle-shell of water from the Ocean: Whatever I look upon within the amplitude of heaven and earth, is evidence of humane ignorance; For all things are a great darkness to us, and we are so unto ourselves: The plainest things are as obscure, as the most confessedly mysterious; and the Plants we tread on, are as much above us, as the Stars and Heavens. The things

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*things that touch us are as distant from us, as the Pole; and we are as much strangers to our selves, as to the inhabitants of America. On review of which, methinks I could begin a new to describe the poverty of our intellectual acquisitions, and the vanity of bold opinion; Which the Dogmatists themselves demonstrate in all the controversies they are engaged in; each party being confident that the others confidence is vain; from which a third may more reasonably conclude the same of the confidence of both. And methinks there should need no more to reduce disputing men to modest acknowledgments, and more becoming temper, then the consideration; That there is not any thing about which the reason of Man is capable of being employed, but hath been the subject of Dispute, and diversity of apprehension. So that, as the excellent Lord Mountaigne hath observed, [Mankind is agreed in nothing; no, not in this, that the heavens are over us;] every man almost*  
(c3) *diffe-*



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differing from another; Yea, and every man from himself: And yet every man is assur'd of his own Scheams of conjecture, though he cannot hold this assurance, but by this proud absurdity, That he alone is in the right, and all the rest of the World mistaken. I say then, there being so much to be produced both from the natural and moral World to the shame of boasting Ignorance; the ensuing Treatise, which with a timorous and un-assur'd countenance adventures into your presence, can pride it self in no higher title, then that of an ESSAY, or imperfect offer at a Subject, to which it could not do right but by discoursing all things. On which consideration, I had once resolv'd to suffer this Trifle to pass both out of Print and Memory; But another thought suggesting, that the instances I had given of humane Ignorance were not only clear ones, but such as are not so ordinarily suspected; from which to our shortness in most things else, 'tis an easie

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easy inference, and a potiori, I was persuaded, and somewhat by experience, that it might not be altogether unuseful in the capacities 'twas intended for: And on these Accounts I suffer'd this Publication; to which (without vanity I speak it) I found so faint an inclination, that I could have been well content to suffer it to have slipt into the state of eternal silence and oblivion. For I must confess that way of writing to be less agreeable to my present relish and Genius; which is more gratified with manly sense, flowing in a natural and unaffected Eloquence, then in the musick and curiosity of fine Metaphors and dancing periods. To which measure of my present humour, I had endeavour'd to reduce the style of these Papers; but that I was loath to give myself that trouble in an Affair, to which I was grown too cold to be much concern'd in. And this inactivity of temper persuaded me, I might reasonably expect a pardon from the ingenious, for faults committed

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An Adress, &c.

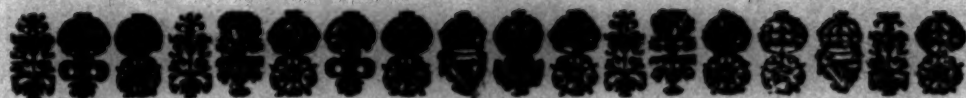
*ted in an immaturity of Age and Judgment  
that would excuse them; and perhaps I  
may have still need to plead it to atone for the  
imperfections of this Adress: By which,  
though I have exposed deformities to the  
clearest Sunshine, that some others prudence  
would have directed into the shades and  
more private recesses; Yet I am secure to lose  
nothing by the adventure that is comparably  
valued by me as is the Honour of declaring  
my self,*

Illustrious Gentlemen,

*The most humble Admirer*

*of Your August Society,*

*Jos. Glanvill.*



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# ADVERTISEMENT.

IN the Author's absence, these Mistakes crept into the Press; the Groffer of which are mark't with an Asterisk, that they may not escape the Readers notice.

## ERRATA.

### In the Discourse.

For	Read	Page	Line.
* Ignorance	Innocence.	1	2
* the in first	first in the	5	13
the	this	16	3
purpose, the motion	purpose, by the motion	26	10
own	one	48	3
and	are	52	6
shott	short	82	penul.
tempers, then	tempers, they	147	4
have	hath	155	17
* Refute	refuse	174	25
* And	All	175	1
He	she	176	1
at at	at an	177	14
bren cradled	been cradled.	178	26

### In the APPENDIX.

#### In the Apology.

deserved	deserted	2	6
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#### In the Letter to Albius.

confest	confess	2	15
* causes want	causes of want	4	17

#### In the Answer.

* Inquiry	Empire	8	13
Yet	Yea	12	13
* Tassus	Fastus.	12	30
Ad	And	17	21
To	For	22	29
Mechanicks	Mechanick	26	20
* Manifest	Immanifest	30	17
unapproved	unprov'd	30	19
difficulty	a difficulty	34	11
difficult	as difficult	34	13
Prain	Brain	34	14
* myrlate	minute	38	18
Arbitrariness	Arbitrariness.	57	20







# Scepsis Scientifica:

O R,

The Vanity of *DOG MATIZING*.

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## CHAP. I.

*A general Description of the state of Primitive Ignorance; by way of Introduction.*



What ever is the *Ignorance* and *Infelicity* of the present *state*, we cannot, without affronting the *Divine Goodness*, deny, but that at first we were made *wise* and *happy*; For nothing of *specific* *imperfection* or deformity could come from the hands that were directed by an *Almighty Wisdom*; so that, whatever disorders have since befallen them, all things were at first disposed by an

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*Omniscient*



*Omniscent Intellect* that cannot contrive ineptly; and our ſelves exactly formed according to the *Idea's* of that *Mind*, which frames things conſonantly to the Rules of their reſpective Natures. But a particular knowledge of the bleſt advantages, and happy circumſtances of our primitive condition, is loſt with *Innocence*; and there are ſcarce any hints of conjecture from the *preſent*. How ever, this perhaps we may ſafely venture on by way of *general Deſcription*;

That the *Æternal Wiſdome* from which we derive our beings, enrich't us with all thoſe enoblements that were ſuitable to the meaſures of an unſtraightned *Goodneſs*, and the *capacity* of ſuch a kind of Creature. And as the *primogenial Light* which at firſt was diffuſed over the face of the unfashion'd *Chaos*, was afterwards contracted into the Fountain *Luminaries*; ſo thoſe ſcattered perfections which were divided among the ſeveral ranks of inferiour Natures, were ſumm'd up, and conſtellated in *ours*. Thus the then happy temper of our condition and affairs anticipated the *Aspires* to be *Like Gods*; and poſſibly was ſcarce to be added to as much as in deſire. But the unlikeness of It to our now *miſerable*, becauſe *Apoſtate*, State, makes it almoſt as impoſſible to be conceiv'd, as to be regained. 'Twas a condition envied by Creatures that nature had placed a *Sphear* above us; and ſuch as differ'd not much from *Glory* and bleſſed *Immortality* but in *perpetuity* and *duration*.

For ſince the moſt deſpicable and diſregarded pieces of decayed nature are ſo curiouſly wrought, and adorned with ſuch eminent ſignatures of Divine Wiſdome as ſpeak It their Authour, and that after a Curſe brought upon a diſorder'd Univerſe : with how rich an *Embroidery* then think we were the nobler compoſures dignified in the days of ſpotleſs Innocence? And of how ſublime a quality were the *perfections* of the Creature that was to wear the *Image* of the Prime perfection? Doubtleſs, they were as much above the *Hyperbolies* that Fond Poetry beſtowes upon it's admired objects, as their flatter'd imperfect beauties are really below them. And the moſt refined Glories of *Subcæleſtial* excellencies are but more faint reſemblances of *theſe*. For all the powers and faculties of this *Copy* of the Divinity, this *Meddal* of God, were as perfect, as *beauty* and *harmony* in *Idæa*. The ſoul being not cloy'd by an unactive maſs, as *now*; nor hindered in it's actings, by the *diſtemperature* of indiſpoſed Organs. *Paſſions* kept their place, and tranſgreſt not the boundaries of their proper Natures; Nor were the diſorders began which are occaſion'd by the licence of unruly *Appetites*. Now though perhaps ſome will not allow ſuch vaſt advantages to the *terreſtrial Adam*, which they think not conſiſtent with the *Hiſtory*, and circumſtances of his *Deſection*: Yet thoſe that ſuppoſe the *Allegory* and *Præ-exiſtence*, will eaſily admit all this, and more of the *Æthereal* Condition. But I'll not determine any thing in matters of ſo high and difficult a Nature; which ever



is the truth; this general Accompt I have given is not concerned; I asserting only what both will acknowledge, That the first condition of our natures was a state of blessedness and perfection.

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## CHAP. II.

*Our Decay and Ruines by the Fall; particularly those of our Intellectual Powers.*

**B**Ut, 'tis a *miserable* thing to have been *happy*. And a self contracted wretchedness, is a double one. Had *Felicity* alwayes been a stranger to our natures, our *now misery* had been *none*; And had not our selves been the Authours of our Ruines, *less*. We might have been *made unhappy*, but since we are *miserable* we chose it. He that gave them, might have taken from us our other enjoyments, but nothing could have rob'd us of *innocence* but our *selves*. That we are below the Angels of God is no *misery*, 'tis the lot of our *Natures*: But that we have made our selves like the *beasts that perish*, is severely so, because the Fruit of a voluntary defection. While Man was *innocent* he was likely ignorant of nothing, that imported him to know. But when he had *transgressed*, the Fault that opened his eyes upon his *shame*, shut them up from most things else, but his newly purchased *misery*.

*fery*. He saw the *Nakedness* of his *soul* with that of his *body*, and the blindness and disarray of his *Faculties*, which his former innocence was a stranger to. And what disclosed this *Poverty* and these *Disorders*, caused them, whether the *understanding* and *affections* were the most criminal Authours of that unhappy defailance, need not be disputed. And how evils should commence in so blessed a Constitution of affairs, and advantageous temper of them both, will perhaps difficultly be determined: Merciful Heaven having made it easier to know the *cure*, then the *rise* of our distempers. This is certain, that our *Masculine powers* are deeply sharers of the consequential mischiefs; and though *Eve* were the in first the *disobedience*, yet was *Adam* a joynt partaker of the *Curse*: So that we are not now like the Creatures we were made, but have lost both our Makers *image*, and our own. And possibly the Beasts are not more inferior to us, then we are to our antient selves: A proud affecting to be like *Gods*, having made us unlike *Men*. For (to pass the other instances of our degradation, which indeed were a plentiful Subject, but not so press to my design) our *intellectual* and Highest *Faculties* are deplorable evidence of our Ruins. And upon these I shall fix my Observations.

For whereas our ennobled understandings could once take the wings of the morning, to visit the World above us, and had a glorious display of the highest form of created excellencies, they now lye groveling in this lower



region, muffled up in mists, and darkness: the curse of the Serpent is fallen upon *degenerated Man*, To go on *his belly and lick the dust*. And as in the *Cartesian hypothesis*, the Planets sometimes lose their light, by the fixing of the impurer *scum*; so our impaired intellectuals, which were once as pure *light and flame* in regard of their vigour and activity, are now darkned by those grosser *spots*, which disobedience hath contracted. And our now overshadow'd souls (to whose beauties Stars were foils) may be exactly emblem'd, by those *crusted globes*, whose influential emissions are intercepted, by the interposal of the benighting element, while the purer essence is imprison'd by the gross and impervious Matter. For these once glorious lights, which did freely shed abroad their harmless beams, and wanton'd in a larger circumference, are now pent up in a few *first principles* (the *naked essentials* of our *faculties*) within the straight confines of a Prison. And whereas knowledge dwelt in our undepraved natures, as light in the *Sun*, in as great plenty, as purity; it is now hidden in us like sparks in a flint, both in scarcity and obscurity.

For, considering the *shortness* of our *intellectual sight*, the *deceptibility* and impositions of our *senses*, the *tumultuary disorders* of our *passions*, the *prejudices* of our *infant educations*, and infinite such like (of which an after occasion will befriend us, with a more full and particular recital) I say, by reason of these, we may conclude of the *science* of the most of men, truly so called, that it may be

be truss'd up in the same room with the *Iliads*, yea it may be all the certainty of those high pretenders to it, the voluminous Schoolmen, and Peripatetical Dictators, (bating what they have of the first Principles and the Word of God) may be circumscrib'd by as small a circle, as the Creed, when *Brachygraphy* had confin'd it within the compass of a penny. And methinks the disputes of those assuming *confidents*, that think so highly of their Attainments, are like the controversie of those in *Plato's* den, who having never seen but the shadow of an horse trajected against a wall, eagerly contended, whether its *neighing* proceeded from the appearing Mane, or Tail, ruffled with the winds. And the *Dogmatist's* are no less at odds in the darker cells of their *imaginary* Principles, about the *shadows* and *exuvia* of beings; when for the most part they are strangers to the substantial *Realities*. And like children are very buisie about the Babyes of their *Phancies*, while their useles subtilties afford little entertainment to the nobler Faculties.

But many of the most accomplish't wits of all ages, whose modesty would not allow them to boast of more then they were owners of, have resolv'd their knowledge into *Socrates* his summe total, and after all their pains in quest of *Science*, have sat down in a professed *nescience*. It is the shallow unimprov'd intellects that are confident pretenders to certainty; as if contrary to the *Adage*, *Science had no friend but Ignorance*. And though their general acknowledgments of the weakness  
of



of humane understanding, and the narrowness of what we know, look like cold and sceptical discouragements; yet the particular expressions of their sentiments and opinions, are as Oracular, as if they were Omniscient. To such, as a curb to confidence, and as an evidence of humane infirmities even in the noblest parts of Man, I shall give the following instances of our intellectual blindness: not that I intend to poze them with those common *Ænigma's* of *Magnetism*, *Fluxes*, *Refluxes*, and the like; these are resolv'd into a *confest* ignorance, and I shall not persue them to their old *Asylum*: and yet it may be there is more knowable in these, then in less acknowledg'd mysteries: But I'll not move beyond our selves, and the most ordinary and trivial *Phænomena* in nature, in which we shall finde enough to shame *Confidence*, and unplume *Dogmatizing*.

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CHAP. III.

*A general Account of our Ignorance of our own Natures.*

TO begin then with the *Theory* of our own *Natures*; we ſhall find in them too great evidence of intellectual deficiency, and deplorable confeſſions of humane ignorance. For we came into the world, and we know not how; we live in't in a ſelf-neſcience, and go hence again and are as ignorant of our *recess*. We grow, we live, we move at firſt in a *Microcoſm*, and can give no more *Scientific* account, of the ſtate of our three quarters confinement, then if we had never been extant in the greater world, but had expir'd in an *abortion*; we are enlarg'd from the priſon of the womb, our ſenſes are affected, we imagine and remember; and yet know no more of the immediate reaſons of theſe common functions, then thoſe little *Embryo Anchorites*: We breath, we talk, we move, while we are ignorant of the manner of theſe vital performances. The *Dogmatist* knows not how he itirts his finger; nor by what art or method he directs his tongue in articulating ſounds into voyces. New parts are added to our ſubſtance, to ſupply our continual decayings, and as we dye we are born daily; nor can we give a certain



tain account, how the *aliment* is so prepared for *nutrition*, or by what *mechanism* it is so regularly distributed; we are transported by *Passions*; and our *mindes* ruffled by the disorders of the *body*: Nor yet can we tell how these should reach our *immaterial selves*, or how the *Soul* should be affected by such kind of *agitations*. We lay us down, to *sleep* away our cares; night shuts up the Senses windows, the mind contracts into the Brains *centre*; We *live* in *death*, and *lye* as in the *grave*. Now we know nothing, nor can our waking thoughts inform us, who is *Morpheus*, and what that leaden *Key* that locks us up within our senseless Cels: There's a difficulty that pincheth, nor will it easily be resolved. The *Soul* is awake, and solicited by external motions, for some of them reach the perceptive region in the most silent repose, and obscurity of night. What is't then that prevents our *Sensations*; or if we do perceive, how is't that we *know* it not? But we *Dream*, see *Visions*, converse with *Chimera's*; the one half of our lives is a *Romance*, a fiction. We retain a catch of those pretty stories, and our awakened imagination smiles in the recollection. Nor yet can our most severe inquiries finde what did so abuse us, or shew the nature and manner of these nocturnal *illusions*: When we puzzle our selves in the disquisition, we do but *dream*, and every *Hypothesis* is a *phancy*. Our most industrious conceits are but like their object, and as uncertain as those of midnight. Thus when some dayes and nights have gone over us, the stroak of Fate concludes the number of  
our

our pulses; we take our leave of the *Sun* and *Moon*, and lay our Heads in *Ashes*. The vital flame goes out, the *Soul* retires into another world, and the *body* to dwell in *darkness*. Nor doth the last Scene yield us any more satisfaction in our *autography*; for we are as ignorant how the *Soul* leaves the light, as how it first came into it; we know as little how the *union* is *dissolved*, that is the chain of the so differing *subsistencies* that compound us, as how it first commenced. This then is the proud creature that so highly pretends to *knowledge*, and that makes such a noise and bustle for *Opinions*. The instruction of *Delphos* may shame such *confidents* into *modesty*; and till we have learn't that honest *adviso*, though from *hell*, *INQVI ZEATTON*, *Confidence* is arrogance, and *Dogmatizing* unreasonable presuming. I doubt not but the opinionative resolver, thinks all these easie *Problems*, and the Theories here accounted *Mysteries*, are to him *Revelations*. But let him suspend that conclusion till he hath weigh'd the considerations hereof, which the process of our Discourse will present him with; and if he can untie those knots, he is able to teach all humanity, and will do well to oblige mankind by his informations.



## CHAP. IV.

*Some great Instances of our Ignorance discours'd of, (1) of things within our selves. The Nature of the Soul and it's Origine, glanc'd at and past by: (1) It's union with the body is unconceivable: So (2) is its moving the body, consider'd either in the way of Sir K. Digby, Des-Cartes, or Dr. H. More, and the Platonists. (3) The manner of direction of the Spirits, as unexplicable.*

**B**Ut that I may more closely pursue the design I am engag'd on, I shall discourse some great *Instances* of our *Ignorance* in a way of more press and strict survey. And those I shall insist on are such as (1) concern the *SOUL*, both in its *common Nature*, and *particular Faculties*. Or (2) such as are drawn from the consideration of *our own*, other *organical BODIES*, and *MATTER* in the general. And (3) some *trite and common APPEARANCES*. Of which I discourse in order.

If certainty were anywhere to be expected, one would think it should be in the Notices of our Souls, which are indeed our *selves*, and whose *sentiments* we are intimately acquainted with. In things without us, ignorance is no wonder; since we cannot profound into the *hidden things* of Nature, nor see the first Springs and wheelles that set the rest a going. We view but small pieces of the *Universal Frame*, and want *Phænomena* to make intire and secure *Hypotheses*. But if *that* whereby we know other things, know not it self; if our Souls are strangers to things within them, which they have far greater advantages of being acquainted with, than matters of external nature; I think then this first instance will be a Fair one, for the extorting a Confession of that *Ignorance* I would have acknowledg'd.

(1) I take notice then that the learned world hath been at an infinite uncertainty about the speculation of the Souls Nature. In which every man almost held a distinct opinion. Plato call'd it, only in the general, *A self-moving substance*. Aristotle an *Entelechie*, or, An Hee knew not what. Hesiod and Anaximander compounded It of *Earth* and *Water*. Heraclides made It *Light*. Zeno the *Quintessence* of the four Elements. Xenocrates and the Egyptians a *Moving Number*. The Chaldeans a *Vertue* without *Form*. Parmenides composed It of *Earth* and *Fire*. Empedocles of *Blood*. Galen held It an *hot Complexion*. Hippocrates a *Spirit* diffused through the *body*. Varro supposed It an *heated and dispersed Aire*. Thales a *Nature*



without reſt. And *Crates* and *Decearchus*, Nothing. Thus have the greateſt Sages differ'd in the firſt Theory of humane Nature; which yet perhaps is not ſo deſperate an Inquiry, as ſome others that are apprehended leſs difficult. And poſſibly moſt have been deceived in this *Speculation*, by ſeeking to graſp the *Soul* in their *Imaginations*; to which groſs faculty, that purer eſſence is unpalpable: and we might as well expect to *taste* the *Sunbeams*. Such therefore are to be minded, that the *Soul* is ſeen, like other things, in the *mirrour* of it's *effects* and *attributes*: But if like Children, they'l run behind the glaſs to catch it, their expectations will meet with nothing but *vacuity* and *emptineſs*. And though a pure *intellectual* eye may have a ſight of it in *reflex* discoveries; yet if we affect a groſſer touch, like *Ixion* we ſhall embrace a Cloud.

(2) It hath been no leſs a trouble to determine the *Soul's Original*, than *Nature*. Some thought It was from the beginning of the World; and one of the firſt things created. Others, that 'tis an extract from the univerſal ſoul of all things. Some believe It came from the *Moon*, others from the *Stars*, or vaſt ſpaces of the *Æther* above the *Planets*; ſome that 'tis made by *God*, ſome by *Angels*, and ſome by the *Generant*. Whether it be immediately *created*, or *traded*, hath been the great ball of contention to the Later Ages. And yet, after all the bandying attempts of reſolution; 'Tis as much a *Queſtion* as ever; and it may be will be ſo till it be concluded by *Immortality*.

*ality*. The Patrons of Traduction accuse their Adversaries of affronting the *Attributes* of God; and the Assertours of *Creation* impeach *Them* of violence to the *Nature* of *Things*. Either of the opinions strongly opposeth the other; but very feebly defends *it self*. Which occasions some to think, that both are *right*, and both *mistaken*: *Right* in what they say against each other; but *Mistaken* in what they plead for their respective selves. But I shall not stir in the waters which have been already mudded by so many contentious Inquiries. The great St. *Austin*, and others of the grey heads of Reverend Antiquity, have been content to sit down here in a profest Neutrality: And I'll not industriously endeavour to urge men to a confession of what they freely acknowledge; but shall note difficulties which are not so usually observ'd, though as unaccountable as *these*.

§. 1. IT is the saying of divine *Plato*, that Man is natures *Horison*; dividing betwixt the upper *Hemisphere* of immaterial intellects, and this lower of *Corporeity*: And that we are a Compound of beings distant in extreams, is as clear as Noon. But how the purer Spirit is united to this *clod*, is a knot too hard for our degraded intellects to unty. What *cement* should unite *heaven* and *earth*, light and darkness, natures of so divers a make, of such disagreeing attributes, which have almost nothing, but *Being*, in common: This is a riddle, which must be left to the coming of *Elias*. How should



a thought be united to a marble ſtatue, or a ſun-beam to a lump of clay? The freezing of the words in the air in the Northern climes, is as conceivable, as the ſtrange union. That this *active ſpark*, this *σύνερον πνεῦμα* ( as the Stoicks call it ) ſhould be confined to a Priſon it can ſo eaſily pervade, is of leſs facil apprehenſion, then that the light ſhould be pent up in a box of Cryſtal, and kept from accompanying its ſource to the lower world: And to hang weights on the wings of the winde ſeems far more intelligible.

In the *unions*, which we underſtand, the extreams are reconciled by interceding participations of natures, which have ſomewhat of either. But *Body* and *Spirit* ſtand at ſuch a diſtance in their eſſential compositions, that to ſuppoſe an uniter of a middle conſtitution, that ſhould partake of ſome of the qualities of both, is unwarranted by any of our faculties, yea moſt abſonous to our reaſons; ſince there is not any the leaſt affinity betwixt *length*, *breadth* and *thickneſs*; and *apprehenſion*, *judgement* and *diſcourſe*: The former of which are the moſt immediate reſults ( if not eſſentials ) of *Matter*, the latter of *Spirit*.

§. 2. **S**Econdly, We can as little give an account, how the *Soul* moves the *Body*. That, that ſhould give motion to an unwieldy *bulk*, which it ſelf hath neither *bulk* nor *motion*; is of as difficil an apprehenſion, as any myſtery in nature. For though conceiving it under  
ſome

some phancied appearance, and pinning on it material affections, the doubt doth not so sensibly touch us ; since under such conceptions we have the advantage of our senses to befriend us with parallels ; and gross apprehenders may not think it any more strange, then that a Bullet should be moved by the rarified fire, or the clouds carryed before the invisible winds : yet if we defæcate the notion from *materiality*, and abstract *quantity*, *place*, and all kind of *corporeity* from it, and represent it to our thoughts either under the notion of the ingenious Sir K. Digby ; as, A pure *Mind* and *Knowledge* ; or, as the admir'd *Des-Cartes* expresses it, *Une chose qui pense*, as, *A thinking substance* ; it will be as hard to apprehend, as that an empty wish should remove Mountains : a supposition which if realized, would relieve *Sisyphus*. Nor yet doth the ingenious hypothesis of the most excellent *Cambrigian* Philosopher, of the *Soul's* being an *extended penetrable* substance, relieve us ; since, how that which penetrates all bodies without the least jog or obstruction, should impress a motion on any, is by his own confession alike inconceivable. Neither will its moving the Body by a *vehicle* of Spirits, avail us ; since they are Bodies too, though of a purer mould.

And to credit the unintelligibility both of this *union* and *motion*, we need no more then to consider that when we would conceive any thing which is not obvious to our senses, we have recourse to our memories the store-house of past observations : and turning over the treasure



that is there, ſeek for ſomething of like kind, which hath formerly come within the notice of our outward or inward ſenſes. So that we cannot conceive any thing, that comes not within the verge of ſome of theſe; but either by like *experiments* which we have made, or at leaſt by ſome remoter hints which we receive from them. And where ſuch are wanting, I cannot apprehend how the thing can be conceived. If any think otherwiſe, let them carefully peruſe their perceptions: and, if they finde a determinate intellection of the Modes of Being, which were never in the leaſt hinted to them by their *external* or *internal* ſenſes; I'll believe that ſuch can realize *Chimera's*. But now in the caſes before us there are not the leaſt footſteps, either of ſuch an *Union*, or *Motion*, in the whole circumference of ſenſible nature: And we cannot apprehend any thing beyond the evidence of our faculties.

§. 3. **T**Hirdly, How the *Soul directs* the *Spirits* for the motion of the *Body* according to the ſeveral animal exigents; is as perplex in the Theory, as either of the former. For the *meatus*, or paſſages, through which thoſe ſubtil emiſſaries are conveyed to the reſpective members, being ſo almoſt infinite, and each of them drawn through ſo many Meanders, croſs turnings, and divers roads, wherein other ſpirits are continually a journeying; it is wonderful, that they ſhould exactly perform their regular deſtinations without loſing their way

way in ſuch a wilderneſs : neither can the wit of man tell how they are directed. For that they are carryed by the manuduction of a Rule, is evident from the conſtant ſteadyness and regularity of their motion into the parts, where their ſupplies are expected : But, what that regulating efficiency ſhould be, and how managed ; is not eaſily determin'd. That it is performed by meer *Mechaniſme*, conſtant experience confutes ; which aſſureth us, that our *ſpontaneous* motions are under the *Imperium* of our *will*. At leaſt the firſt determination of the Spirits into ſuch or ſuch paſſages, is from the *Soul*, what ever we hold of the after conveyances ; of which likewise I think, that all the Philoſophy in the world cannot make it out to be purely *Mechanical*. But yet though we gain this, that the *Soul* is the principle of direction, the difficulty is as formidable as ever. For unleſs we allow it a kinde of inward ſight of the *Anatomical* frame of its own body of every *vein*, *muſcle*, and *artery* ; of the exact ſite, and poſition of them, with their ſeveral windings, and ſecret chanelſ : it is as unconceivable how it ſhould be the *Directrix* of ſuch intricate motions, as that a blind man ſhould manage a game at Cheſs, or Maſſhal an Army. But this is a kinde of *knowledge*, that we are not in the leaſt aware of : yea many times we are ſo far from an attention to the inward *direction* of the *Spirits*, that our employ'd mindes obſerve not any method in the outward performance ; even when 'tis manag'd by variety of interchangeable motions , in which a ſteady



direction is difficult, and a miscariage easie. Thus an Artist will play a Lesson on an Instrument without minding a stroke; and our tongues will run divisions in a tune not missing a note, even when our thoughts are totally engaged elsewhere: which effects are to be attributed to some secret *Art* of the Soul, which to us is utterly occult, and without the ken of our Intellects.

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## CHAP. V.

(4) *We can give no account of the manner of Sensation.*

§. 4. **B**Ut besides the *difficulties* that lye more deep, and are of a more mysterious alloy; we are at a loss for a *scientific* account even of our *Senses*, the most knowable of our faculties. Our eyes, that see other things, see not themselves: And the foundations of knowledge are themselves unknown. That the Soul is the sole Percipient, which alone hath *animadversion* and *sense* properly so called, and that the Body is only the receiver and conveyer of corporeal impressions, is as certain, as Philosophy can make it. *Aristotle* himself teacheth so much in that Maxime of his *Νοῦς ὁρᾷ, καὶ τοῦς αἰσθεῖται*. And *Plato* credits this position with his suffrage; affirming, that 'tis the Soul that hath *life* and *sense*, but the  
body

*body* neither. But this is ſo largely proſecuted by the the Great *Des-Cartes*, and is a Truth that ſhines ſo clear in the Eyes of all conſidering men; that to go about induſtriouſly to prove it, were to light a candle to ſeek the the Sun: we'll therefore ſuppoſe it, as that which needs not arreſt our motion; but yet, what are the inſtruments of ſenſible perceptions and particular conveyers of outward motions to the *ſeat of ſenſe*, is difficult: and how the pure mind can receive information from that, which is not in the leaſt like it ſelf, and but little reſembling what it represents; I think inexplicable Whether *Senſation* be made by *corporal emissions* and *material* ΕΙΔΩΛΑ, or by notions impreſt on the *Æthereal* matter, and carried by the continuity thereof to the Common ſenſe; I'll not revive into a Diſpute: The ingenuity of the latter hath already given it almoſt an abſolute victory over its Rival. But ſuppoſe which we will, there are doubts not to be ſolv'd by either. For how the ſoul by mutation made in *matter* a ſubſtance of another kind, ſhould be excited to action; and how bodily alterations and motions ſhould concern *that* which is ſubject to neither; is a difficulty, which confidence may ſooner triumph on, then conquer. For *body* cannot act on any thing but by *motion*; motion cannot be received but by *quantity* and *matter*; the *Soul* is a ſtranger to ſuch groſs *ſubſtantiality*, and ownes nothing of theſe, but that it is cloathed with by our deceived phancies; and therefore how can we conceive it ſubject to *material impreſſions*? and yet the



importunity of pain, and unavoydableness of *sensations* strongly perswade, that we are *so*.

Besides, how is it, and by what *Art* doth it read that such an *image* or stroke in *matter* (whether that of her vehicle, or of the Brain, the case is the same) signifies such an *object*? Did we learn an Alphabet in our *Embryo*-state? And how comes it to pass, that we are not aware of any such congenite apprehensions? *We know what we know*; but do we *know* any more? That by diversity of *motions* we should spell out *figures*, *distances*, *magnitudes*, *colours*, things not resembled by them; we must attribute to some *secret deduction*. But what this *deduction* should be, or by what *mediums* this Knowledge is advanc'd; is as dark, as Ignorance. One, that hath not the knowledge of Letters, may see the *Figures*; but comprehends not the meaning included in them: An infant may hear the sounds, and see the motion of the lips; but hath no conception conveyed by them, no knowing what they are intended to signify. So our *Souls*, though they might have perceived the *motions* and *images* themselves by *simple sense*; yet without some *implicit inference* it seems inconceivable, how by that means they should apprehend their *Archetypes*.

Moreover, *Images* and *Motions* are in the Brain in a very inconsiderable latitude of space; and yet they represent the greatest *magnitudes*. The image of an  
Hemisphere

*Hemisphere* of the upper Globe cannot be of a wider circumference, then a Wall-nut: And how can such petty impressions notifie such vastly expanded objects, but through some kind of *Scientifical* method, and *Geometry* in the Principle? without this it is not conceivable how *distances* should be perceiv'd, but all objects would appear in a cluster, and lye in as narrow a room as their images take up in our scatter *Craniums*. Nor will the Philosophy of the most ingenious *Des-Cartes* help us out: For, *The striking of divers filaments of the brain*, cannot well be supposed to represent *Distances*, except some such kind of *Inference* be allotted us in our faculties: the concession of which will only steed us as a Refuge for *Ignorance*; where we shall meet, what we would seem to shun.

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## CHAP. VI.

*The nature of the Memory unaccountable.  
'Tis consider'd particularly according to  
the Aristotelian, Cartesian, Digbæan and  
Hobbian Hypothesis.*

§. 5. **T**He Memory also is a faculty whose nature is as obscure, and hath as much of Riddle in it as any of the former: It seems to be an *Organical Power*, because bodily distempers often marr its *Idea's*, and cause a total oblivion: But what instruments the Soul useth in her review of past impressions, is a question which may drive Enquiry to despair. There are four principal *Hypotheses* by which a Resolution hath been attempted.

The *Peripatetick*, the *Cartesian*, the *Digbæan*, and the *Hobbian*. We'll examine these Accounts of the *Magnale*. And I begin with that which will needs have it self believ'd the most venerable for *Antiquity* and *Worth*.

(1) Then according to *Aristotle* and his *Peripatam*, Objects are conserved in the *Memory* by certain *intentional Species*, Beings, which have nothing of Matter in  
their

their Essential Constitution, but yet have a necessary subjective dependence on it, whence they are called *Material*. To this briefly.

Besides that these Species are made a *Medium* between *Body* and *Spirit*, and therefore partake of no more of Being, then what the charity of our Imaginations affords them; and that the supposition infers a creative *energie* in the object their producent, which Philosophy allows not to Creature-Efficients: I say, beside these, it is quite against their nature to subsist, but in the presence and under the actual influence of their cause; as being produc'd by an *Emanation Causality*, the Effects whereof dye in the removal of their Origine. But this superannuated conceit deserves no more of our remembrance, then it contributes to the apprehension of it. And therefore I pass on to the *Cartesian* which speaks thus:

The *Glandula Pinealis*, in this Philosophy made the seat of Common Sense, doth by its motion impel the Spirits into divers parts of the Brain; till it find those wherein are some tracks of the object we would remember; which consists in this, *viz.* That the Pores of the Brain, through the which the Spirits before took their course, are more easily opened to the Spirits which demand re-entrance; so that finding those pores, they make their way through them sooner then through others: whence there ariseth a special motion in the *Glandula*, which signifies this to be the object we would remember.



But I fear there is no ſecurity neither in this *Hypotheſis*; For if *Memory* be made by the *eaſie motion* of the *Spirits* through the opened *paſſages*, according to what hath been noted from *Des-Chartes*; whence have we a diſtinct Remembrance of ſuch diverſity of Objects, whoſe Images without doubt paſs through the ſame *apertures*? And how ſhould we recal the diſtances of Bodies which lye in a line? Or, is it not likely, that the impell'd *Spirits* might light upon other Pores accommodated to their purpoſe, the *Motion* of other Bodies through them? Yea, in ſuch a *pervious* ſubſtance as the *Brain*, they might finde an eaſie either entrance, or *exit*, almoſt everywhere; and therefore to ſhake every grain of corn through the ſame holes of a Sieve in repeated winnowings, is as eaſie to be performed, as this to be perceived. Beſides, it's difficult to apprehend, but that theſe *avenues* ſhould in a ſhort time be ſtopped up by the preſſure of other parts of the matter, through its natural *gravity*, or other alterations made in the *Brain*: And the opening of other *vicine paſſages* might quickly obliterate any tracks of theſe; as the making of one hole in the yielding *mud*, defaces the print of another near it; at leaſt the acceſſion of enlargement, which was derived from ſuch tranſitions, would be as ſoon loſt, as made.

We are ſtill to ſeek then for an *Oedipus* for the Riddle; wherefore we turn our eyes to the *Digbean Account*, of which this is the ſumme; That things are reſerved in the *Memory* by ſome corporeal *exuvia* and material Images; which

which having impinged on the Common ſenſe, rebound thence into ſome vacant cells of the Brain, where they keep their ranks and poſtures in the ſame order that they entred, till they are again ſtirr'd up; and then they ſlide through the *Fancy*, as when they were firſt preſented.

But, how is it imaginable, that thoſe active particles, which have no cement to unite them, nothing to keep them in the order they were ſet, yea, which are ever and anon juſtled by the occuſion of other bodies, whereof there is an infinite ſtore in this Repository, ſhould ſo orderly keep their *Cells* without any alteration of their ſite or poſture, which at firſt was allotted them? And how is it conceivable, but that careleſſly turning over the *Idea's* of our mind to recover ſomething we would remember, we ſhould put all the other Images into a diſorderly floating, and ſo raiſe a little *Chaos* of confuſion, where Nature requires the exaſteſt order. According to this account, I cannot ſee, but that our *Memories* would be more confuſed then our Mid-night compositions: For is it likely, that the divided *Atomes* which preſented themſelves together, ſhould keep the ſame ranks in ſuch a variety of tumultuary agitations, as happen in that liquid *Medium*? An heap of Ants on an Hillock will more eaſily be kept to an uniformity in motion; and the little bodies which are inceſſantly playing up and down the Air in their careleſs poſtures, are as capable of Regularity as theſe.



The laſt Account of the *Faculty* we are inquiring of is the *Hobbian*, according to which *Hypotheſis*; Memory is nothing elſe but the knowledge of *decaying Senſe*, made by the *reaction* of one *body* againſt another; or, as the Author expreſſes it in his *Humane Nature*, *A miſſing of Parts in an Object*. The foundation of which Principle (as of many of its fellows) is totally evers't by the moſt ingenious Commentator upon *Immaterial Beings*, Dr. H. More in his book *Of Immortality*. I ſhall therefore leave that cauſe in the hands of that moſt learned undertaker, and only obſerve two things to my preſent purpoſe.

(1) Neither the *Brain*, nor *Spirits*, nor any other material ſubſtance within the *Head* can for any conſiderable ſpace of time conſerve *motion*. The former is of ſuch a clammy conſiſtence, that it can no more retain it then a *Quagmire*: And the *ſpirits* for their liquidity are more uncapable then the fluid *Medium*, which is the conveyer of *Sounds*, to perſevere in the continued repetition of *vocal Ayres*. And if there were any other ſubſtance within us, as fitly temper'd to preſerve *motion*, as the Author of the opinion could deſire: Yet (2) which will equally preſs againſt either of the former, this motion would be quickly deadned by *counter-motions*; and we ſhould not remember any thing, but till the next impreſſion. Much leſs can this Principle give an account, how ſuch an abundance of *motions* ſhould orderly ſucceed one another, as things

things do in our *memories*: And to remember a *ſong* or *tune*, it will be required, that our Souls be an *Harmony* more then in a *Metaphor*, continually running over in a ſilent whisper thoſe *Muſical accents* which our retentive faculty is preſerver of. Which could we ſuppoſe in a ſingle Inſtance; yet a multitude of *Muſical Conſonancies* would be as impoſſible, as to play a thouſand tunes on a *Lute* at once. One motion would croſs and deſtroy another; all would be clashing and diſcord: And the *Muſicians Soul* would be the moſt *diſharmonious*: For, according to the tenour of this opinion; our *memories* will be ſtored with infinite variety of divers, yea contrary motions, which muſt needs interfere, thwart, and obſtruct one another: and there would be nothing within us, but *Ataxy* and diſorder.

§. 6. **M**uch more might be added of the difficulties, which occur concerning the *Underſtanding*, *Phancy*, *Will*, and *Affections*. But the Controverſies hereabout, are ſo hotly manag'd by the divided *Schools*, and ſo voluminouſly everywhere handled; that it will be thought better to ſay nothing of them, then a little. The ſole difficulties about the *Will*, its nature, and ſequency to the *Underſtanding*, &c. have almoſt quite baffled inquiry, and ſhewn us little elſe, but that our *Underſtandings* are as blind as it is. And



the grand question depending hereon, *πῶς τὸ ἄκρον*; I think will not be ended, but by the final abolition of its object. They, that would lose their *Knowledge* here, let them diligently inquire after it. Search will discover that *Ignorance*, which is as invincible, as its Cause. These *Controversies*, like some *Rivers*, the further they run, the more they are hid. And it may be a poorer account is given to them now, than some *Centuries* past, when they were a subject of debate to the pious *Fathers*.

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CHAP.

CHAP. VII.

*How our Bodies are form'd unexplicable. The Plaſtick ſignifies nothing; the Formation of Plants, and Animals unknown, in their Principle. Mechanisme ſolves it not. A new way propounded, which alſo fails of ſatisfaction. (2.) No account is yet given how the parts of Matter are united. Some Conſideration on Des-Cartes his Hypotheſis, it fails of Solution. (3.) The Queſtion is unanſwerable, whether Matter be compounded of Diviſibles, or Indiviſibles.*

**B**Ut from theſe I paſs to the Second General, the conſideration of Bodies, our own and others. For our own, though we ſee, and feel, and continually converſe with them; yet their conſtitution, and inward frame is an *America*, a yet undiscovered Region. And the ſaying of the Kingly Prophet, *I am wonderfully made*, may well be underſtood of that admiration, which is the *Daughter of Ignorance*. Three things  
I'll



I'll subjoyn concerning this *Sensible matter*, the other part of our composition.

§. 1. **T**Hat our *Bodie's* are made according to the most curious *Artifice*, and orderly contrivance, cannot be denyed even by them, who are least beholden to *Nature*. The elegance of this composure, sav'd *Galen* from *Atheism*. And I cannot think that the branded *Epicurus*, *Lucretius*, and their fellows were in earnest, when they resolv'd this composition into a *fortuitous range* of *Atoms*. To suppose a *Watch*, or any other the most curious *Automaton* by the blind hits of *Chance*, to perform diversity of orderly *motions*, to shew the *hour*, *day* of the *Month*, *Tides*, *age* of the *Moon*, and the like, with an unparallel'd exactness, and all without the regulation of *Art*; this were the more pardonable absurdity. And that this admirable *Engine* of our *Bodies*, whose functions are carryed on by such a multitude of *parts*, and *motions*, which neither interfere, nor impede one another in their operations; but by an *harmonious Sympathy* promote the perfection and good of the whole: That this should be an undesign'd effect, is an assertion, that is more then *Melancholies Hyperbole*. I say therefore, that if we do but consider this *Fabrick* with free and unpossess'd mindes; we shall easily grant, that it was some skilful *Archeus* who delineated those comely *proportions*, and hath exprest such exactly *Geometrical elegancies* in its compositions. But what  
this

this hidden *Architect* should be, and by what *instruments* and art this frame is erected; is as *unknown* to us, as the thoughts of our cradles. The *Plastick* faculty is a fine word, and will do well in the mouth of a puzzled *Emperick*: But what it is, how it works, and whole it is, we cannot learn; no, not by a return into the *Womb*; neither will the *Platonick* Principles unriddle the doubt: For though the Soul be supposed to be the Bodies *Maker*, and the builder of its own house; yet by what kind of *Knowledge, Method, or Means*, is as unknown: and that we should have a *knowledge* which we know not of, is an assertion which hath no commission from our Faculties. The Great *Des-Cartes* will allow it to be no better, then a downright absurdity. But yet should we suppose it, it would be evidence enough of what we aim at.

§. 2. **N**Or is the composition of our own Bodies the only wonder: we are as much nonplust by the most contemptible *Worm*, and *Plant*, we tread on. How is a drop of Dew organiz'd into an Insect? or, a lump of Clay into a more perfect *Animal*? How are the Glories of the Field spun, and by what Pencil are they limn'd in their unaffected bravery? By whose direction is the nutriment so regularly distributed unto the respective parts, and how are they kept to their specifick uniformities? If we attempt *Mechanical* solutions, we shall never give an account, why the *Wood-cock* doth not sometimes borrow colours of the *Mag-pye*; why the *Lilly*  
F
doth



doth not exchange with the *Dayſie*; or why it is not ſometime painted with a bluſh of the *Roſe*? Can *un-guided matter* keep it ſelf to ſuch exact conformities, as not in the leaſt ſpot to vary from the *ſpecies*? That divers *Limners* at a diſtance without either copy, or deſigne, ſhould draw the ſame *Piſture* to an undiſtinguiſhable exactneſs, both in *form*, *colour*, and *features*; is more conceivable, then that *matter*, which is ſo diverſified both in *quantity*, *quality*, *motion*, *ſite*, and infinite other circumſtances, ſhould frame it ſelf ſo unerringly according to the *Idea* of its kind. And though the fury of that *Apelles*, who threw his Pencil in rage upon the Piſture he had eſſayed to draw, once caſually effected thoſe lively representations, which his Art could not deſcribe; yet 'tis not likely, that one of a thouſand ſuch *præcipitancies* ſhould be crowned with ſo an unexpected an iſſue. For though *blind matter* might reach ſome *elegancies* in individual effects; yet *ſpecifick conformities* can be no *unadviſed* productions, but in greateſt likelyhood, are regulated by the immediate efficiency of ſome *knowing agent*: which whether it be *ſeminal Formes*, according to the *Platonical Principles*, or whatever elſe we pleaſe to ſuppoſe; the manner of its working is to us *unknown*: or if theſe effects are meerly *Mechanical*; yet to learn the method of ſuch operations may, and hath indeed been, ingeniouſly attempted; but I think cannot be performed to the ſatisfaction of ſeverer examination.

That all bodies both *Animal*, *Vegetable*, and *Inanimate*,  
are

are form'd out of ſuch particles of matter, which by reaſon of their figures, will not cohere or lye together, but in ſuch an order as is neceſſary to ſuch a ſpecifica formation, and that therein they naturally of themſelves con-  
curre, and reſide, is a pretty conceit, and there are ex-  
periments that credit it. If after a decoction of *bearbs* in  
a Winter-night, we expoſe the liquor to the frigid air ;  
we may obſerve in the morning under a cruſt of Ice, the  
perfect appearance both in *figure*, and *colour*, of the *Plants*  
that were taken from it. But if we break the *aqueous*  
*Crystal*, thoſe pretty *images* diſ-appear and are preſently  
diſſolved.

Now theſe *airy Vegetables* are preſumed to have been  
made, by the reliques of theſe *plantal emissions* whole  
avolation was prevented by the *condensed incloſure*. And  
therefore playing up and down for a while within their  
liquid priſon, they at laſt ſettle together in their natural  
order, and the *Atomes* of each part finding out their pro-  
per place, at length reſt in their methodical Situation ;  
till by breaking the *Ice* they are diſturbed, and thoſe  
counterfeit *compoſitions* are ſcatter'd into their firſt *Indi-  
viſibles*. This *Hypotheſis* may yet ſeem to receive further  
confirmation, from the artificial *reſurrection* of *Plants*  
from their *aſhes*, which *Chymiſts* are ſo well acquainted  
with : And beſides, that *Salt* diſſolved upon fixation, re-  
turns to its affected *cubes*, the regular figures of *Minerals*,  
as the *Hexagonal* of *Crystal*, the *Hemi-ſpherical* of  
the *Fairy-ſtone*, the *ſtellar figure* of the ſtone *Aſteria*,  
F 2 and



and such like, seem to look with probability upon this way of formation. And I must needs say 'tis handsomly conjectur'd. But yet what those figures are, that should be thus mechanically adapted, to fall so unerringly into regular compositions, is beyond our faculties to conceive or determine. And now those *heterogenous atomes* (for such their figures are supposed) should by themselves hit so exactly into their proper residence in the midst of such tumultuary motions, cross thwartings, and *arietations* of other particles, especially when for one way of hitting right, there are thousands of missing; there's no *Hypothesis* yet extant can resolve us. And yet had heaven afforded that miracle of men, the Illustrious *Des-Cartes* a longer day on earth, we might have expected the utmost of what ingenuity could perform herein: but his immature Fate hath unhappily disappointed us; and prevented the most desirable Complement of his not to be equall'd *Philosophy*.

§. 3.(2) **I**T's no less difficult to give an account, how the *Parts of Matter and Bodies* are united: For though superficial Enquirers may easily satisfy themselves by answering, that it is done by *muscles*, *nerves*, and other like *strings*, and *ligaments*, which Nature hath destin'd to that office; yet, if we seek for an account how the parts of these do cohere, we shall find our selves lost in the enquiry. Nothing with any shew of success hath yet appeared on the *Philosophick Stage*, but the

the opinion of *Des-Cartes*; that the Parts of *Matter* are united by Rest. Neither can I conceive, how any thing can be substituted in its room, more congruous to reason; since Rest is most opposite to *Motion*, the immediate cause of *disunion*. But yet I cannot see, how this can account for the almost *indissoluble coherence* of some bodies, and the *fragility* and *solubility* of others: For if the *Union* of the *Parts* consist only in Rest; it would seem, that a bagg of *dust* would be of as firm a consistence as that of *Marble* or *Adamant*: a Bar of *Iron* will be as easily broken as a *Tobacco-pipe*; and *Bajazets* Cage had been but a sorry *Prison*. The *Ægyptian* *Pyramids* would have been sooner lost, then the Names of them that built them; and as easily blown away, as those *inverſt ones* of *smoke*. Nor can it be pretended for a difference, that the parts of solid bodies are held together by *hooks*, and *angulous involutions*; since the *coherence* of the parts of these will be of as difficult a conception, as the former: And we must either suppose an infinite of them holding together on one another; or at last come to *parts*, that are united by a meer *juxta-position*: Yea, could we suppose the former, yet the coherence of these, would be like the hanging together of an infinite such of *Dust*: which *Hypothesis* would spoil the *Proverb*, and a *rope of sand*, should be no more a phrase for *Labour in vain*: For unless there be something, upon which all the rest may depend for their *cohesion*; the hanging of one by another, will signifie no more then the mutual dependence of *causes* and



effects in an infinite Series, without a First: the admission of which, *Atheism* would applaud. But yet to do the Master of *Mechanicks* right; somewhat of more validity in the behalf of this *Hypothesis* may be assign'd: Which is, that the closeness and compactness of the Parts resting together, doth much confer to the strength of the union: For every thing continues in the condition, wherein it is, except something more powerful alter it: And therefore the parts, that rest close together, must continue in the same relation to each other, till some other body by motion disjoyn them. Now then, the more parts there are pen't together, the more able they will be for resistance; and what hath less compactness, and by consequence fewer parts, according to the laws of motion will not be able to effect any alteration in it. According to what is here presented, what is most dense, and least porous, will be most coherent, and least discernible. And if this help not, I cannot apprehend what can give an account of the former instances. And yet even this is confuted by experience; since the most porous spongie bodies are oft-times the most tough in consistence. 'Tis easier to break a tube of *Glass* or *Crystal*, then of *Elm* or *Ash*: And yet as the parts of the former are more, so they are more at rest; since the liquid juyce, which is diffused through the parts of the Wood, is in a continual agitation, which in *Des-Cartes* his *Philosophy* is the cause of fluidity; and a proportion'd humidity confer's much

much to *union* (Sir K. Digby makes it the *Cement* it ſelf); *A dry ſtick* will be eaſily broken, when a *green one* will maintain a ſtrong reſiſtence: and yet in the *moiſt* ſubſtance there is leſs *reſt*, then in what is *dryer* and more *fragill*. Much more might be added: But I'll content my ſelf with what's mentioned; and, notwithstanding what hath been ſaid, I judge this account of that *miraculous wit* to be the moſt *ingenious* and *rational*, that *hath* or (it may be) *can* be given. I ſhall not therefore conclude it falſe; though I think the emergent *difficulties*, which are its attendants, *unanswerable*: proof enough of the weakneſs of our *now Reaſons*, which are driven to ſuch ſtraights and puzzles even in things which are moſt *obvious*, and have ſo much the advantage of our *faculties*.

§. 4. (3.) **T**He *composition* of *Bodies*, whether it be of *Diviſibles* or *Indiviſibles*, is a queſtion which muſt be rank'd with the *Indiſſolvibles*: For though it hath been attempted by the moſt illuſtrious *Wits* of all *Philosophick* Ages; yet they have done little elſe, but ſhewn their own *diviſions* to be almoſt as *infinite*, as ſome ſuppoſe thoſe of their Subject. And notwithstanding all their ſhifts, ſubtilties, newly invented Words and Modes, ſly ſubterfuges, and ſtudyed evaſions; yet the product of all their endeavours,



vours, is but as the Birth of the labouring *Mountains*, *Wind*, and *Emptiness*. Do what they can; *Actual Infinite extension every where*, *Equality of all bodies*, *Impossibility of Motion*, and a world more of the most palpable absurdities will press the assertors of *infinite divisibility*. Neither can it be avoided, but that all *motions* would be *equal in velocity*; the *lines* drawn from side to side in a *Pyramid*, may have more parts than the *Basis*, all bodies would be swallow'd up in a *point* and endless more inconsistencies, will be as necessarily consequential to the opinion of *Indivisibles*. But intending only to instance in difficulties, which are not so much taken notice of; I shall refer the Reader, that would see more of this, to *Oviedo*, *Pontius*, *Ariaga*, *Carelon*, and other *Jesuites*: whose management of this subject with equal force on either side, is a strong presumption of what we drive at.

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CHAP. VIII.

*Difficulties about the Motion of a Wheel,  
which admit of no Solution.*

**B**ESIDES the already mention'd difficulties, even the most ordinary trivial occurrents, if we contemplate them in the *Theory*, will as much puzzle us, as any of the former. Under this head I'll add three things concerning the Motion of a *Wheel*, and conclude this branch of my subject.

§. 1. **F**IRST then in the abstract consideration, it seems impossible that a *Wheel* should move: I mean not the *progressive*, but that Motion which is merely on its own *Centre*. And were it not for the information of Experience, it's most likely that *Philosophy* had long ago concluded it *impossible*: For let's suppose the wheel to be divided according to the *Alphabet*. In motion then there is a change of place, and in the motion of a *wheel* there is a succession of one part to another in the same place; so that it seems unconceivable that *A.* should move until *B.* hath left his place: For *A.* cannot move, but it must acquire some place or other. It can acquire none but what was *B's*, which we



ſuppoſe to be moſt immediate to it. The ſame ſpace cannot contain them both. And therefore *B.* muſt leave its place, before *A* can have it; Yea, and the nature of ſucceſſion requires it. But now *B.* cannot move, but into the place of *C*; and *C.* muſt be out, before *B.* can come in: ſo that the motion of *C.* will be pre-required likewiſe to the motion of *A*; and ſo onward till it comes to *Z.* Upon the ſame accounts *Z.* will not be able to move, till *A* moves, being the part next to it: neither will *A.* be able to move (as hath been ſhewn) till *Z.* hath. And ſo the motion of every part will be pre-requir'd to it ſelf. Neither can one evade, by ſaying, that all the parts move at once. For (1.) we cannot conceive in a ſucceſſion but that ſomething ſhould be firſt, and that motion ſhould begin ſomewhere. (2.) If the parts may all change places with one another at the ſame time without any reſpect of priority and poſteriority to each others motion: why then may not a company of Bullets cloſely crowded together in a Box, as well move together by a like mutual and ſimultaneous exchange? Doubtleſs the reaſon of this ineptitude to motion in this poſition is, that they cannot give way one to another, and motion can no where begin becauſe of the plenitude. The caſe is juſt the ſame in the inſtance before us; and therefore we need go no further for an evidence of its inconceivableneſs. But yet to give it one touch more according to the Peripatetick niceſneſs, which ſayes, that one part enters in the ſame inſtant that the other goes out: I'll add this.

this in brief: In the instant that *B.* leaves its place, it's in it, or not: If so; then *A.* cannot be in it in the same instant without a penetration. If not; then it cannot be said to leave it in that instant, but to have left it before. These difficulties, which pinch so in this obvious experiment, stand in their full force against all Motion on the Hypothesis of absolute plenitude. Nor yet have the Defenders hereof need to take notice of them, because they equally press a most sensible Truth. Neither is it fair, that the opposite opinion of interspers'd vacuities should be rejected as absurd upon the account of some inextricable perplexities which attend it. Therefore let them both have fair play; and whichsoever doth with most ease and congruity solve the Phenomena, that shall have my vote for the most Philosophick Hypothesis.

§. 2. IT's a difficulty no less desperate then the former, that the parts vicine to the centre, which it may be pass not over the hundredth part of space which those do of the extreme circumference, should describe their narrower circle but in equal time with those other, that trace so great a round. If they move but in the same degree of Velocity; here is then an equality in time and motion, and yet a vast inequality in the acquired space. A thing which seems flatly impossible: For is it conceivable, that of two bodies setting forth together, and continuing their motion in the same swiftness, the one should so far out-go its fellow, as to move ten mile an hour,



hour, while the other moves but a furlong? If ſo, 'twill be no wonder, that *the race is not to the ſwift*, and the *furtheſt way about* may well be the *neareſt way home*. There is but one way that can be attempted to untie this knot; which is, by ſaying, that the *remoter* and more out-ſide parts move more ſwiftly than the *central* ones. But this likewise is as unconceivable as what it would avoid: For ſuppoſe a right *line* drawn from the *centre* to the *circumference*, and it cannot be apprehended, but that the *line* ſhould be inflected, if ſome parts of it move faſter than others. I ſay if we do abſtractedly from experience contemplate it in the *theory*, it is hard to conceive, but that one part moving, while the other reſts, or at leaſt moves ſlower (which is as reſt to a ſwifter motion) ſhould change its diſtance from it, and the reſpect, which it had to it; which one would think ſhould cauſe an incurvation in the *line*.

§. 3. **L**et there be two *Wheels* fixt on the ſame *Axel* in *Diameter* ten inches a piece. Between them let there be a *little wheel*, of two inches *Diameter*, fixed on the ſame *Axel*. Let them be moved together on a plane, the great ones on the ground ſuppoſe, and the little one on a *Table* (for becauſe of its parvitude it cannot reach to the ſame floor with them.) And you'll find that the little wheel will move over the ſame ſpace in equal time with equal *circulations*, with the great ones, and deſcribe as long a line. Now  
this

this seems bigg of repugnancies, though Sense it self suffragate to its truth: For since every part of the greater wheels make a proportionable part of the line, as do the parts of the little one, and the parts of those so much exceeding in multitude the parts of this: It will seem necessary that the line made by the greater wheels should have as many parts more then the line made by the less, as the wheels themselves have in *circumference*, and so the line would be as much longer as the wheels are bigger: so that one of these absurdities seems unavoidable, either that more parts of the greater wheels go to the making one part of their lines, which will infer a *penetration of dimensions*; or that the little wheel hath as many parts as the great ones, though five times in *Diameter* exceeded by them, since the lines they describe are of equal length; or the less wheel's line will have fewer parts then the others, though of equal extent with them, since it can have no more parts then the *less circle*, nor *they* fewer then the *greater*. What offers have been made towards the resolving this difficulty, by the ingenious *Tacquet* and others, and with what success; will be considered in the Appendix; to which, that I may pursue other matters, I remit the Inquisitive Reader.

Should I have enlarged on this Subject to the taking in of all things that claim a share in't, it may be few things would have been left unspoken to, but



the Creed. Philosophy would not have engross'd our Pen, but we must have been forced to anger the *Intelligences* of higher Orbs. But intending only a glance at this rugged Theam, I shall forbear to insist more on it, though the consideration of the *Mysteries* of *Motion*, *Gravity*, *Light*, *Colours*, *Vision*, *Sound*, and infinite such like (things obvious, yet unknown) might have been plentiful subject. I come now to trace some of the causes of our *Ignorance* and *Intellectual weakness*: and among so many it's almost as great a wonder as any of the former; that we can say, *We know*.

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CHAP.

CHAP. IX.

*Mens backwardness to acknowledge their own Ignorance and Error, though ready to find them in others. The (1) cause of the Shortness of our Knowledge, viz. the depth of Verity discourst of, as of its admixtion in Mens Opinions with falsehood, and the connexion of truths, and their mutual dependence: A second Reason of the Shortness of our Knowledge, viz. because we can perceive nothing but by proportion to our Senses.*

**T**He Disease of our *Intellectuals* is too great, not to be its own evidence: And they that feel it not, are not less sick, but stupidly so. The weakness of humane understanding, all will confess; yet the confidence of most in their own reasonings, practically disowns it: And 'tis easier to perswade them it from others lapses than their own; so that while all complain of our Ignorance and Error, every one exempts himself. It is acknowledged by all, while  
every;



every one denies it. If the foregoing part of this Discourse, have not universally concluded our weakness: I have own Item more of mine. If knowledge can be found in the Particulars mentioned; I must lose that, which I thought I had, *That there is none.* But however, though some should pick a quarrel with the instances I alleadged; yet the conclusion must be owned in others. And therefore beside the general reason I gave of our intellectual disabilities, *The Fall*; it will be worth our labour to descend to a more particular account: Since it is a good degree of Knowledge to be acquainted with the causes of our Ignorance. And what we have to say under this head, will equally concern our *misapprehensions* and *Errors*. And the particulars I intend are *Causes* and *Evidences* of both.

§. I. (1) **T**hen we owe much of our Ignorance to the depth of Knowledge; which is not the acquist of *superficials* and *supine* enquirers. *Democritus* his Well hath a *Babe*, and Truth floats not. The useless froth swims on the surface; but the Pearl lies cover'd with a mass of Waters. *Verisimilitude* and *Opinion* are an easie purchase: But true Knowledge is dear and difficult. Like a point or line, it requires an acuteness and intention to its discovery; while *verisimilitude*, like the expanded *superficies*, is an obvious sensible, and affords a large and easie field for loose enquiry. And 'tis the more difficult to find out Truth, because it

is

is in such inconsiderable proportions scattered in a mass of *opinionative uncertainties*; like the Silver in *Hiero's* Crown of Gold: And it is no easie piece of *Chymistry* to reduce these *Minutes* to their *unmixed selves*. The Elements are no where pure in these lower *Regions*; and if there is any free from the admixtion of another, sure 'tis above the *concave* of the *Moon*: Neither can any boast a *knowledge* depurate from the defilement of a contrary, within this *Atmosphere* of flesh; it dwells no where in unblended proportions, on this side the *Empyreum*. All Opinions have their *Truth*, and all have what is not *so*; and to say *all* are *true* and *none*, is no absurdity. So that to crown our selves with sparks, which are almost lost in such a world of *heterogeneous* natures, is as difficult as desirable. Besides, *Truth* is never *single*; to know one will require the knowledge of many. They hang together in a chain of mutual dependence; you cannot draw one linke without attracting others. Such an Harmony cannot commence from a single string; diversity of strokes makes it. The beauty of a Face is not known by the *Eye*, or *Nose*; it consists in a *symmetry*, and 'tis the comparative faculty which votes it: Thus is *Truth relative*, and little considerable can be attained by *catches*. The Painter cannot transcribe a face upon a Transient view; it requires the information of a fixt and observant *Eye*: And before we can reach an exact sight of *Truth's* uniform perfections, this *fleeting*



*Transitory* our *Life*, is gone. So that we see the face of *Truth*, but as we do one anothers, when we walk the streets, in a careless *Pass-by*: And the most diligent observers, view but the back-side o'th' *Hangings*; the right one is on the other side the *Grave*: And our *Knowledge* is but like those *broken ends*; at best a most confused *adumbration*. Nature, that was veil'd to *Aristotle*, hath not yet uncover'd, in almost two thousand years. What he sought on the other side of *Euripus*, we must not look for on this side *Immortality*. In easie disquisitions we are often left to the uncertainty of a guess: yea after we have triumph'd in a supposed *Eureka*; a new-sprung difficulty marrs our *Ovations*, and exposeth us to the Torment of a disappointment: so that even the great *Master of Dogmatists* himself concludes the Scene with an *Anxius vixi, Dubius morior*.

§. 2. **A** Nother reason of our *Ignorance* and the narrowness of our *apprehensions* is; That we cannot perceive the manner of any of *Natures* operations, but by proportion to our *senses*, and return to *material phantasms*. A blind man conceives not colours, but under the notion of some other *sensible*; and more perfect apprehenders as grossly misconceive *Immaterials*: Our imaginations painting *Souls* and *Angels* in as little agreeing a resemblance. And had there not been any *night, shadow, or opacity*; we should never have had:

had any determinate conceit of *Darkness*; That would have been as *inconceivable* to us, as its contrary is to him that never saw it.

But now our *senses* being scant and limited, and Nature's operations subtil and various; they must needs transcend, and out-run our faculties. They are only Nature's grosser wayes of working, which are *sensible*; Her finer threads are out of the reach of our dull *Percipient*. Yea questionless she hath many hidden *Energies*, no wayes imitated in her obvious pieces: and therefore it is no wonder that we are so often at a loss; an infirmity beyond prevention, except we could step by step follow the tracks and Methods of *Infinite Wisdom*, which cannot be done but by him that owns it.



## CHAP. X.

*A third reason of our Ignorance and Error, viz. the impostures and deceits of our Senses. The way to rectifie these misinformations propounded. Des-Chartes his method the only way to Science. The difficulty of exact performance.*

§. 3. **A**Nother reason is the *Imposture* and fallacy of our Senses, which impose not only on common Heads, who scarce at all live to the higher Principle; But even more refined *Mercuries*, who have the advantages of an improved reason to disabuse them, and yet frequently captivated to these deceiving Prepossessions: appealing to a Judicature both uncommissioned and unjust; and when the clearest Truth is to be tryed by such Judges, its innocence will not secure it from the condemning award of that *unintelligent Tribunal*: For since we live the life of *Brutes*, before we grow into *Man*; and our understandings in this their *Non-age*, being almost meerly Passive to sensible

ble Impressions, receiving all things in an uncontroverted and promiscuous admission: It cannot be, that our Knowledge should be other, then an heap of *Misconception* and *Error*, and conceits as impertinent as the *toys* we delight in. All this while we have no more reason, then the ΕΙΔΩΛΟΝ ΨΥΧΗΣ (as *Plotinus* calls it) amounts to. And besides this our easie submission to sophistications of *sense*, and inability to prevent the miscarriages of our *Junior* Reasons; and that which strikes the great stroke toward our after-deceptions, is the pertinacious adherence of many of these first impressions, to our advanc't Understandings. That which is early received, if in any considerable strength of *Impress*, as it were grows into our tender natures, and is therefore of difficult remove. Thus a fright in *Minority*, or an *Antipathy* then contracted, is not worn out but with its subject. And it may be more then a *Story*, that *Nero* derived much of his cruelty from the Nurse that suckled him. Now though our coming Judgements do in part undeceive us, and rectifie the grosser Errors which our unwary Sensitive hath engaged us in; yet others are so flesht in us, that they maintain their interest upon the deceptibility of our decayed Natures, and are cherish't there, as the legitimate issues of our reasonable faculties.



Indeed *Senſe* it ſelf detects its more palpable de-  
 ceits, by a counter-evidence; and the more ordi-  
 nary Impoſtures ſeldom out-live the firſt *Experiments*.  
 If our *ſight* repreſent a Staff as crooked in the *wa-*  
*ter*; the ſame faculty rectifies both it, and us, in  
 the thinner *Element*. And if a ſquare Tower ſeem  
 round at a diſtance; the eye, which miſtook in the  
 circumſtance of its figure, at that remove, corrects  
 the miſtake in a due approach: Yea, and befriends  
 thoſe who have learn'd to make the advantage of its  
 informations, in more remote and difficil diſcove-  
 ries. And though his *Senſe* occaſion the careleſs  
*Raſtick* to judge the *Sun* no bigger then a *Cheefe-fat*;  
 yet *ſenſe* too by a frugal improvement of its evi-  
 dence, grounds the *Aſtronomers* knowledge, that it's  
 bigger then this *Globe of Earth and Water*. Which  
 it doth not only by the advantageous aſſiſtance of a  
*Tube*, but by leſs induſtrious experiments, ſhew-  
 ing in what degrees *Diſtance* minorates the Ob-  
 ject. But yet in infinite other caſes, wherein *ſenſe*  
 can afford none, or but very little help to diſ-in-  
 tangle us; our firſt deceptions loſe no ground, but  
 rather improve in our riper years: ſo that we are  
 not weaned from our *child-hood*, till we return to  
 our ſecond *Infancy*; and even our *Gray heads* out-  
 grow not thoſe Errors, which we have learn't before  
 the *Alphabet*.

Thus

Thus our *Reasons* being inoculated on *Sense*, will retain a relish of the stock they grew on: And if we would endeavour after an unmixed Knowledge; we must *unlive* our former *lives*, and (inverting the practice of *Penelope*) undo in the *day* of our more advanc'd understandings, what we had spun in the *night* of our *Infant-ignorance*. He that would rebuild a decayed *structure*, must first pluck down the former *ruines*. A *fabrick*, though high and beautiful, if founded on *rubbish*, is easily made the triumph of the winds: And the most pompous seeming Knowledge, that's built on the unexamin'd prejudices of *Sense*, stands not, but till the *storm* *arise*; the next strong encounter discovers its weakness, in a shameful overthrow. Since then, a great part of our *Scientific* *Treasure* is most likely to be *adulterate*, though all bears the image and superscription of *Truth*; the only way to know what is sophisticate, and what is not so, is to bring all to the *Examen* of the Touchstone: For the prepossessions of *sense* having (as is shewen) so mingled themselves with our Genuine Truths, and being as plausible to appearance as they; we cannot gain a true assurance of any, but by suspending our assent from all, till the deserts of each, discover'd by a strict enquiry, claim it. Upon this account I think the *method* of the most excellent *Des-Cartes* not unworthy its Author; and (since

*Dog.*



*Dogmatical Ignorance* will call it so) a *Scepticism*, that's the only way to *Science*. But yet this is so difficult in the impartial and exact performance, that it may be well reckon'd among the bare *Possibilities*, which never commence into a *Futurity*: It requiring such a *free, sedate, and intent* minde, as it may be is nowhere found but among the *Platonical Idea's*. Do what we can, *Prejudices* will creep in, and hinder our *Intellectual Perfection*: And though by this means we may get some comfortable allay to our distempers; yet can it not perfectly cure us of a disease, that sticks as close to us as our *Natures*.

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## CHAP. XI.

*Two Instances of Sensitive deception. (1) Of the Quiescence of the Earth. Sense is the great inducement to its belief; its testimony deserves no credit in this case, though it do move, Sense would present it as immoveable. The Sun to Sense is as much devoid of motion as the Earth. The Cases wherein motion is insensible, Applied to the Earths motion. The unweildiness of its bulk is no argument of its immobility.*

**T**O Illustrate the Particular I am discoursing of, I'll endeavour to detect the unlucky influence of Sensitive prejudice by a double Instance; the free debate of which I conceive to be of importance, though hitherto for the most part obstructed, by the peremptory conclusion of a faculty which I shall make appear to have no suffrage in the case of either: And the pleasantness and concernment of the Theories, if it be one, I hope will atone the Digression.



§. 2. **F**irst, it is generally opinion'd, that the *Earth* rests as the Worlds centre, while the *Heavens* are the subject of the *Universal Motions*; And, as *immoveable as the Earth*, is grown into the credit of being *Proverbial*. So that for a man to go about to counter-argue this belief, is as fruitless as to whistle against the windes. I shall not undertake to maintain the *Paradox*, that confronts this almost *Catholick Opinion*. Its assertion would be entertained with the hoot of the Rabble: the very mention of it as possible, is among the most ridiculous; and they are likely most severely to judge it, who least understand what it is they censure. But yet the Patronage of as great *Wits*, as it may be e're saw the Sun, such as *Pythagoras*, *Des-Cartes*, *Copernicus*, *Galileo*, *More*, *Kepler*, and generally the *vertuosi* of the awakened world, hath gain'd it a more favourable censure with learned mankind; and advanc'd it far above either vain, or contemptible. And if it be a mistake, it's only so: There's no *Heresie* in such an harmless aberration; at the worst, with the ingenuous, the probability of it will render it a lapse of easie Pardon.

Now whether the *Earth* move or rest, I undertake not to determine. My work is to prove, that the common inducement to the belief of its *quiescence*, the testimony of *sense*, is weak and frivolous: to the end, that if upon an unprejudiced tryal, it be found more consonant to the *Astronomical Phenomena*; its *Motion* may

may be admitted, notwithstanding the ſeeming contrary evidence of unconcerned *Senſes*. And I think what follows will evince, that this is no ſo abſurd an *Hypotheſis*, as Vulgar Philoſophers account it; but that, though it *move*, its *motion* muſt needs be as *inſenſible*, as if it were *quieſcent*: and the aſſertion of it would then be as uncouth and harſh to the ſons of *Senſe*, that is, to the generality of Mankind, as now it is.

That there is a *motion*, which makes the viciffitudes of day and night, and conſtitutes the ſucceſſive Seasons of the year; *Senſe* may aſſure us; or at leaſt the comparative Judgment of an higher faculty, made upon its immediate evidence: But whether the *Sun*, or *Earth*, be the common *Movement*, cannot be determin'd but by a further appeal. If we will take the literal evidence of our Eyes; the *Æthereal Coal* moves no more then this *Inferior clod* doth: For where ever in the *Firmament* we ſee it, it's repreſented to us, as fixt in that part of the enlightened *Hemiſphere*. And though an after-account diſcover, that it hath changed it's *Site* and *reſpect* to this our *Globe*; yet whether that were cauſed by its tranſlation from us, or ours from it, *Senſe* leaves us in an *Ignoramus*: So that if we are reſolved to ſtand to its Verdict, it muſt be by as great a *Miracle* if the *Sun* ever *move*, as it was that it once *reſted*, or what ever elſe was the ſubject of that ſupernal change. And if upon a meer ſenſible account we will deny *Motion* to the *Earth*; upon the ſame inducement we muſt deny



it the *Sun*; and the *Heavens* will loſe their *First Moveable*. But to draw up cloſer to our main deſign, We may the better conceive that, though the *Earth* move, yet its *Motion* muſt needs be inſenſible; if we conſider that in theſe caſes relating to our purpoſe, *Motion* ſtrikes not the *Senſe*.

(1.) Then if the *Motion* be very ſlow, we perceive it not. We have no ſenſe of the *accretive* motion of *Plants* or *Animals*; And the ſly *ſhadow* ſteals away upon the *Dyal*; And the quickeſt *Eye*, can diſcover no more but that 'tis gone. Which *inſenſibility* of ſlow motions I think may thus be accounted for; *Motion* cannot be perceived without the perception of its *Terms*, viz. The parts of ſpace which it immediately left, and thoſe which it next acquires. Now the ſpace left and acquir'd in every ſenſible moment in ſuch ſlow progreſſions, is ſo inconfiderable, that it cannot poſſibly move the *ſenſe*; (which by reaſon either of its conſtitutional dulneſs, or the importunity of ſtronger impreſſions, cannot take notice of ſuch parvitutes) and therefore neither can the *Motion* depending thereon, be any more obſervable, then we find it.

2. If the *ſentient* be carryed *paſſibus aequis* with the body, whole *motion* it would obſerve; (ſuppoſing that it be *regular* and *ſteddy*). In this caſe the remove is inſenſible, at leaſt in its proper ſubject. We perceive not a Ship to move, while we are in it; but our ſenſe transfers its motion to the neighbouring ſhores, as the Poet, *Littus campiq; recedunt*. And I queſtion not, but if any were born.

born and bred under Deck, and had no other information but what his ſenſe affords; he would without the leaſt doubt or ſcruple, opinion, that the houſe he dwelt in, was as ſtable and fixt as ours. To expreſs the reaſon according to the Philoſophy of *Des-Cartes*, I ſuppoſe it thus: *Motion* is not perceived, but by the *ſucceſſive ſtrikings* of the object upon divers *filaments* of the *Brain*; which diversifie the representation of its *ſite* and *diſtance*. But now when the motion of the object is common with it, to our ſelves; it retains the ſame relation to our ſenſe, as if we both *reſted*: For ſtriking ſtill on the ſame *ſtrings* of the *Brain*, it varies not its *ſite* or *diſtance* from us; and therefore we cannot poſſibly perceive its motion: nor yet upon the ſame account our own; leaſt of all, when we are carryed without any *conamen* and endeavour of ours, which in our particular progrefſions betrays them to our notice.

Now then, The *Earths motion* (if we ſuppoſe it to have any) hath the concurrence of both, to render it *inſenſible*; And therefore we need no more proof to conclude the neceſſity of its being ſo.

For though the *Fiſt* ſeems not to belong to the preſent caſe, ſince the ſuppoſed motion will be near a thouſand miles an hour under the *Equinoctial line*; yet it will ſeem to have no *Velocity* to the ſenſe any more than the received motion of the *Sun*, and for the ſame reaſon. Becauſe the diſtant points in the *Celeſtial ex-*



*panse* (from a various and successive respect to which the length, and consequently the swiftness of this motion must be calculated) appear to the Eye in so small a degree of elongation from one another, as bears no proportion to what is real. For since the Margin of the *Visible Horizon* in the *Heavenly Globe* is Parallel with that in the *Earthly*, accounted but 120 miles diameter; Sense must needs measure the *Aximuths*, or *Vertical Circles*, by triplication of the same diameter of 120. So that there will be no more proportion betwixt the *sensible* and *real* celerity of the *Terrestrial Motion*, then there is between the *visible* and *rational dimension* of the celestial *Hemisphear*, which is none at all.

But if sensitive prejudice will yet confidently maintain the Impossibility of the *Hypothesis*, from the supposed *unwieldiness* of its massie bulk, grounded on our experience of the ineptitude of great and heavy bodies to *Motion*: I say this is a meer Imposture of our *Senses*, the fallacy of which we may avoid, by considering; that the *Earth* may as easily move, notwithstanding this pretended indisposition of its *magnitude*, as those much vaster *Orbs* of *Sun* and *Stars*. He that made it, could as well give motion to the whole, as to the parts; the constant agitation of which is discover'd in natural productions: and to both, as well as *Rest* to either: Neither will it need the assistance of an *Intelligence* to perpetuate the begun  
Rotation:

*Rotation*: Since according to the Indispensible Law of Nature (That every thing should continue in the state wherein it is, except something more powerful hinder it) it must persevere in Motion, unless obstructed by a Miracle. Neither can Gravity, which makes great bodies hard of Remove, be any hinderance to the Earths motion: since even the Peripatetick Maxime, *Nihil gravitat in suo loco*, will exempt it from the indisposition of that Quality; which is nothing but the tendency of its parts, which are ravish'd from it, to their desired Centre. And the French Philosophy will inform us, that the Earth as well as other bodies is indifferent in it self to Rest, or its contrary.

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## CHAP. XII.

*Another instance of the deceptions of our Senses: which is of translating the Idea of our Passions to things without us. Properly and formally heat is not in the fire, but is an expression of our sentiment. Yet in propriety of speech the Senses themselves are never deceived, but only administer an occasion of deceit to the understanding: prov'd by reason, and the Authority of St. Austin.*

**S**Econdly the *Best Philosophy* (the deserved Title of the *Cartesian*) derives all *sensitive perception* from *Motion*, and corporal impress; some account of which we have above given. Not that the Formality of it consists in *material Reaction*, as Master *Hobbs* affirms, totally excluding any immaterial concurrence: But that the representations of Objects to the Soul, the only *animadversive principle*, are conveyed by motions made upon the immediate Instruments of Sense. So that the diversity of our Sensations ariseth from the diversity

diversity of the *motion* or *figure* of the object; which in a different manner affect the Brain, whence the Soul hath its immediate intelligence of the quality of what is presented. Thus the different effects, which *fire* and *water*, have on us, which we call *heat* and *cold*, result from the so differing *configuration* and *agitation* of their *Particles*; and not from, I know not what *Chimerical beings*, supposed to inhere in the objects, their cause, and thence to be propagated by many petty *imaginary productions* to the seat of *Sense*. So that what we term *heat* and *cold*, and other qualities, are not properly according to *Philosophical* rigour in the Bodies, their *Efficients*: but are rather *Names* expressing our *passions*; and therefore not strictly attributable to any thing without us, but by *extrinsick denominations*, as *Vision* to the Wall.

This I conceive to be an *Hypothesis*, well worthy a rational belief: and yet is it so abhorrent from the *Vulgar*, that they would as soon believe *Anaxagoras*, that *snow* is *black*, as him that should affirm, it is not *white*; and if any should in earnest assert, that the *fire* is not formally *hot*, it would be thought that the heat of his brain had fitted him for *Anticyra*, and that his head were so to madness: For it is conceived to be as certain, as our faculties can make it, that the same qualities, which we resent within us, are in the object, their Source. And yet this confidence is grounded on no better foundation, then a delusory prejudice, and the vote of *misapplied sensations*, which have no warrant to determine either one or other.



I may indeed conclude, that I am formally *hot or cold*; I feel it. But whether theſe qualities are *formally*, or only *eminently* in their producent; is beyond the knowledge of the *ſenſitive*. Even the *Peripatetick* *Philophy* will teach us, that *heat* is not in the Body of the *Sun*, but only *virtually*, and as in its cauſe; though it be the Fountain and great *Distributour* of warmth to the neather *Creation*: and yet none urge the evidence of *ſenſe* to diſprove it: Neither can it with any more *Justice* be alledged againſt this *Hypotheſis*. For if it be ſo as *Des-Cartes* would have it; yet *ſenſe* would conſtantly preſent it to us, as *Now*. We ſhould feel heat as *conſtantly* from *Fire*; it would increaſe in the ſame degrees, in our approach, and we ſhould find the ſame exceſs within the flame: which yet I think to be the chief inducements to the adverſe belief: For *Fine* ( I retain the inſtance, which yet may be applyed to other caſes ) being conſtant in its ſpecific motions in thoſe ſmaller derivations of it, which are its inſtruments of action, and therefore in the ſame manner ſtriking the ſentient, though gradually varying according to the proportions of more or leſs quantity or agitation, &c. will not fail to produce the ſame effect in us, which we call *heat*, when ever we are within the *Orb* of its activity. So that the *heat* muſt needs be augmented by proximity, and moſt of all within the *Flame*, becauſe of the more *violent motion* of the particles there, which therefore begets in us a ſtronger ſentiment. Now if this *motive Energy*, the inſtrument of this active  
*Element,*

*Element*, muſt be called *Heat*; let it be ſo, I contend not. I know not how otherwiſe to call it: To impoſe names is part of the *Peoples Chatter*, and I fight not with *Words*. Only I would not that the *Idea* of our *Paſſions* ſhould be apply'd to any thing without us, when it hath its ſubject no where but in our ſelves. This is the grand deceit, which my deſign is to detect, and if poſſible, to rectifie.

We have ſeen then two notorious inſtances of ſenſitive deception, which juſtifie the charge of *Petron. Arbitr.*

*Fallunt nos oculi, vagiq; ſenſus  
Oppreſſâ ratione mentiuntur.*

And yet to ſpeak properly, and to do our *ſenſes* right, ſimply they are not deceived, but only adminiſter an occaſion to our forward *underſtandings* to deceive themſelves: and ſo though they are ſome way acceſſory to our deluſion; yet the more principal faculties are the *Capital offenders*. If the *Senſes* repreſent the *Earth* as *fixt* and *immoveable*; they give us the truth of their *Sentiments*. To *ſenſe* it is ſo, and it would be deceit to preſent it otherwiſe. For (as we have ſhewn) though it do move in it ſelf; it *reſts* to us, who are carry'd with it. And it muſt needs be to *ſenſe* unalterably *quieſcent*, in that our own *Rotation* prevents the variety of *ſucceſſive Impreſs*; which only renders motion *ſenſible*. And ſo if we erroneouſly attribute our particular incommunicable ſenſations to things, which do no more reſemble them than



the effect doth its *equivocal cause*; our *senses* 'are not in fault, but our *precipitate judgments*. We feel such, or such a *sentiment* within us, and herein is no cheat or misprision: 'tis truly so, and our *sense* concludes nothing of its Rise or Origine. But if hence our *Understandings* falsely deduct, that there is the same quality in the *external impressor*; 'tis, it is *criminal*, our *sense* is *innocent*. When the *Ear* tingles, we really hear a *sound*: If we judge it without us, it's the fallacy of our *Judgments*. The *apparitions* of our frightened *Phancies* are real *sensibles*: But if we translate them without the compass of our *Brains*, and apprehend them as external objects; it's the unwary rashness of our *Understanding* deludes us. And if our disaffected *Palates* resent nought but bitterness from our choicest viands, we truly tast the unpleasing quality, though falsely conceive it in that, which is no more than the occasion of its production. If any find fault with the novelty of the notion; the learned *St. Austin* stands ready to confute the charge: and they who revere *Antiquity*, will derive satisfaction from so venerable a suffrage. He tells us, *Si quis remum frangi in aquâ opinatur, & cum aufertur, integrari; non malum habet internuncium, sed malus est Judex*. And onward to this purpose, The sense could not otherwise perceive it in the *water*, neither ought it: For since the *Water* is one thing, and the *Air* another; 'tis requisite and necessary, that the *sense* should be as different as the *medium*: Wherefore the *Eye* sees aright; if there be a mistake, 'tis the *Judgement's* the

the Deceiver. Elſewhere he ſaith, that our Eyes miſ-inform us not, but faithfully transmit their reſentment to the mind. And againſt the *Scepticks*, That it's a piece of injuſtice to complain of our *ſenſes*, and to exact from them an account, which is beyond the ſphear of their notice: and reſolutely determines, *Quicquid poſſunt videre oculi, verum vident*. So that what we have ſaid of the *ſenſes deceptions*, is rigidly to be charg'd only on our careleſs Underſtandings, miſleading us through the ill management of ſenſible informations. But becauſe ſuch are commonly known by the name of the *Senſes deceipts* (ſomewhat the more juſtifiably in that they adminiſter the occaſion) I have thought good to retain the uſual way of ſpeaking, though ſomewhat varying from the manner of apprehending.

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CHAP.



## CHAP. XIII.

*A fourth Reason of our Ignorance and Error, viz. the fallacy of our Imaginations; an account of the nature of that faculty; Instances of its deceptions; Spirits are not in a place; Intellection, Volition, Decrees, &c. cannot properly be aſcrib'd to God. It is not Reason that oppoſeth Faith, but Phancy: the intereſt which Imagination hath in many of our Opinions, in that it impreſſes a perſwaſion without evidence.*

**F**Ourthly, we erre and come ſhort of Science, becauſe we are ſo frequently miſlead by the evil conduct of our *Imaginations*; whoſe irregular ſtrength and importunity doth almoſt perpetually abuſe us. Now to make a full and clear diſcovery of our *Phancies* deceptions; 'twill be requiſite to look into the nature of that *myſterious faculty*. In which ſurvey we muſt trace the Soul in the wayes of her *intellectual* actions; whereby we may come to the diſtinct knowledge of what is meant

meant by *Imagination*, in contradistinction to some other Powers. But first premising, that the *Souls nature* (at least as far as concerns our inquiry) consists in *intelligibility*: And secondly, that when we speak of *Powers* and *Faculties* of the Soul, we intend not to assert with the *Schools*, their *real* distinction from it, or each other, but only a *modal* diversity. Therefore I shall distribute *Intellectual operations* according to the known *triple* division, though with some difference of representation.

The first is *simple apprehension*, which denotes no more, then the souls naked *Intellection* of an object, without either *composition* or *deduction*. The foundation of this act, as to materials, is *sensitive preception*. Now our *simple* apprehension of corporal objects, if present, we call *Sense*; if absent, we properly name it *Imagination*. When we would conceive a *material* object, our *phancies* present us with it's *Idea*. But in our *Notion* of *spirituals*, we, as much as we can, strip them of all *material Phantasmes*; and thus they become the object of our *Intellects*, properly so called. All this while the *soul* is, as it were, *silent*; and in a more passive way of reception.

But the *second act* advanceth propositions from *simple intellections*: and hereby we have the knowledge of the *distinctions* or *identities* of objects. Now here, as in the former, where they are purely *material*; the Judgment is made by the *Imagination*: if otherwise, we refer it to the *Understanding*.



The *third Act*, is that which connects *Propositions* and deduceth *Conclusions* from them: and *this* the Schools call *Discourse*; and we shall not miscall it, if we name it, *Reason*. *This* as it supposeth the two former, so is it grounded on certain *congenite propositions*; which I conceive to be the very *Essentials* of Rationality. Such are, *Quodlibet est, vel non est*; *Impossibile est idem esse, & non esse*; *Non cutis nulla sunt prædicata*, and such like. Not that every one hath naturally a *formal* and *explicit* notion of these *Principles*: For the *Vulgar* use them, without knowledge of them, under any such *express* consideration; But yet there was never any born to *Reason* without them. Now when the conclusion is deduc'd from the unerring dictates of our faculties; we say the Inference is *Rational*: But when from mis-apprehended, or ill-compounded phantasmes; we ascribe it to the *Imagination*. So we see, there is a triple operation of the *Phancy* as well as *Intellect*; and these powers are only *circumstantially* different. In this method we intend a distinct, though short account, how the *Imagination* deceives us.

First then, the *Imagination*, which is of *simple* perception, doth never of it self and directly mislead us; as is at large declared in our former discourse of *Sense*. Yet is it the almost fatal means of our deception, through the unwarrantable *compositions*, *divisions*, and *applications*, which it occasions the *second Act* to make of the *simple Images*. Hence we may derive the *Visions*, *Voyces*, *Revelations* of  
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the *Enthuſiaſt*: the ſtrong Idea's of which, being conjur'd up into the *Imagination* by the heat of the *melancholiz'd* brain, are judged exterior *Realities*; when as they are but motions within the *Cranium*. Hence Story is full of the wonders, it works upon *Hypochondriacal Imaginants*; to whom the groſſeſt abſurdities are infallible certainties, and free reaſon an Impoſtour. That *Groom*, that conceited himſelf an *Emperour*, thought all as irrational as diſloyal, that did not acknowledge him: And he, that ſuppoſed himſelf made of Glaſs, thought them all *mad*, that diſ-believed him. But we pity, or laugh at thoſe fatuous *Extravagants*; while yet our ſelves have a conſiderable doſe of what makes them *ſo*: and more ſober heads have a ſet of miſconceits, which are as abſurd to an unpaſſionated *reaſon*, as thoſe to our unabuſed *ſenſes*. And as the greateſt counter-evidence to thoſe diſtemper'd phancies is none: ſo in the more ordinary deceits, in which our Imaginations inſenſibly engage us, we give but little credit to the uncorrupted ſuggeſtions of the faculty, that ſhould diſabuſe us.

That the *Soul* and *Angels* are devoid of *quantity* and *dimenſion*, hath the ſuffrage of the moſt; and that they have nothing to do with groſſer *locality*, is as generally opinion'd: but who is it, that retains not a great part of the impoſture, by allowing them a *definitive Ubi*, which is ſtill but *Imagination*? He that ſaid, a *thouſand* might dance on the *point of a Needle*, ſpoke but groſſly; and we may as well ſuppoſe them to have *wings*, as a



proper *Ubi*. We say, *Spirits* are where they operate: But strictly to be in a *place*, or *ubi*, it may be is a *material* Attribute, and incompatible with so pure a Nature. We ask not, in what *place* a *thought* is, nor are we solicitous for the *Ubi* of *Vertue*, or any other *Immaterial* accidents. *Relations*, *Ubications*, *Duration*, the vulgar Philosophy admits to be *Something*; and yet to enquire in what *place* they are, were gross and incongruous. So that, if *to be*, and *to be in a place* be not reciprocal; I know not why *Spirits* may not be exempted, having as much to plead from the purity of their essence, as any thing in nature. And yet *Imagination* stands so strongly against the notion, that it cannot look for the favour of a very diffusive entertainment.

But we are more dangerously deceiv'd, when judging the *Infinite Essence* by our narrow selves; we ascribe *Intellections*, *Volitions*, *Decrees*, *Purposes*, and such like *Immanent actions* to that nature, which hath nothing in common with us, as being infinitely above us. Now to use these as *Hypotheses*, as himself in his Word, is pleas'd to ~~low~~ himself to our capacities, is allowable: But a strict and rigorous imputation is derogatory to him, and arrogant in us. To say, that *God* doth *eminently* contain all those effects in his glorious *simple Essence*, that the creature can produce or act by such a *faculty*, *power*, or *affection*; is to affirm him to be what he is, *Infinite*. Thus, to conceive that he can do all those things in  
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the moſt perfect manner, which we do upon underſtanding, willing, and decreeing; is an apprehenſion ſuteable to his *Idea*: But to fix on him the formality of *faculties*, or *affections*; is the Impoſture of our *Phancies*, and contradictory to his *Divinity*. 'Tis this deception miſleads the contending world; and is the Author of moſt of that darkneſs and confuſion, that is upon the face of the Controverſies of *Dort*. We being then thus obnoxious to fallacy in our apprehenſions and judgments, and ſo often impoſed upon by theſe deceptions; our *Inferences* and *Deductions* muſt needs be as unwarrantable, as our ſimple and compound thoughts are deceitful. So that the reſon of the far greateſt part of mankind, is but an aggregate of miſtaken phantaſms; and in things not ſenſible, a conſtant deluſion. Yea the higheſt and moſt improved Spirits, are frequently caught in the entanglements of a tenacious *Imagination*; and ſubmit to its obſtinate, but deluſory ſuggeſtions. Thus we are involv'd in inextricable perplexities about the *Divine Nature*, and *Attributes*; and in our reasonings about thoſe ſublimities are puzzled with contradictions, which are but the toyings of our *Phancies*, no abſurdities to our more deſecate faculties. What work do our *Imaginations* make with *Eternity* and *Immenſity*? and how are we gravell'd by their cutting *Dilemma's*? I'm confident many have thus imagin'd themſelves out of their



Religion: and run a ground on that more desperate absurdity, *Atheism*. To ſay, *Reason* oppoſeth *Faith*, is to ſcandalize both: 'Tis *Imagination* is the Rebel; *Reason* contradicts its impious ſuggeſtions. Nor is our *Reason* any more accountable for the Errours of our *Opinions*; then our *holineſs* for the *immoralities* of our *Lives*: And we may as well ſay, that the *Sun* is the cauſe of the *ſhadow*, which is the effect of the intercepting *opacity*, as either. *Reason* and *Faith* are at perfect *Unifons*: The diſharmony is in the *Phancy*. Το λογικόν ἐπὶ θεῖον, is a ſaying of *Plato's*; and well worthy a *Christian* ſubſcription, *Reason* being the Image of the *Creators* Wiſdom copyed out in the *Creature*. Though indeed, as 'tis now in the ſubject, 'tis but an amaſſment of *imaginary conceptions*, *praſudices*, *ungrounded opinions*, and infinite *Impoſtures*; and 'tis no wonder, if theſe are at odds with the *Principles* of our belief: But all this is but *apiſh Sophiſtry*, and to give it a Name ſo *Divine* and *excellent*, is abuſive and unjuſt.

There is yet another as deplorable a deceit of our *Imaginations*, as any: which is, its impreſſing a ſtrong perſwaſion of the Truth of an *Opinion*, where there is no evidence to ſupport it. And if it be ſuch, as we never heard queſtion'd or contradicted, 'tis then unſuſpected. The moſt of mankind is led by *opinio-*  
native impuſe, and *Imagination* is prædominant. An

ungrounded credulity is cry'd up for faith; and the more vigorous impressions of Phancy, for the Spirits motions. These are the grand delusions of our Age, and the highest evidence of the Imaginations deceptions. This is the spirit, that works in the children of Phancy; and we need not seek to remoter resolutions. But the excellent Dr. H. More hath follow'd Enthusiastick effects to their proper Origine, and prevented our endeavours of attempting it. His Discourse of Enthusiasm compleatly makes good the Title; and 'tis as well a Victory, as a Triumph.

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## CHAP. XIV.

*A fifth Reason, the præcipitancy of our Understandings; the reason of it. The most close engagement of our minds requisite to the finding of truth; the difficulties of the performance of it. Two instances of our præcipitating; as the concluding things impossible, which to Nature are not so; and the joyning Causes with irrelative Effects.*

§. 5. **A** Gain, another account of the shortness of our Reasons and easiness of deception, is, the forwardness of our Understandings assent, to slightly examin'd conclusions, contracting many times a firm and obstinate belief from weak inducements; and that not only in such things, as immediately concern the sense, but in almost every thing that falls within the scope of our enquiry. For the declaration of this, we are to observe, That every being incessantly aspires to its own perfection, and is restless till it obtain it; as is the trembling Needle, till it find its  
beloved

*beloved North.* Now the perfection of a Faculty is Union with its Object, to which its respective actions are directed, as the ſcope and term of its endeavours. Thus our Underſtanding being perfected by *Truth*, with all the impatience, which accompanies ſtrong deſire, breaths after its enjoyment. But now the good and perfection of *being*, which every thing reacheth at, muſt be known, and that in the particular inſtances thereof; or elſe 'tis not attain'd: and if it be miſtaken, that *being* courts deceit and its own deluſion. This Knowledge of their Good, was at firſt as natural to all things, as the deſire on't: otherwiſe this innate propenſion would have been as much a torment and miſery to thoſe things that are capable of it, as a needleſs impertinency to all others. But Nature ſhoots not at *Rovers*. Even *inanimates*, though they know not their perfection themſelves, yet are they not carryed on by a blind unguided *impetus*: But that which directs them, knows it. The next orders of being have ſome ſight of it themſelves: And man moſt perfectly had it, before his unhappy defecti- on. So then beſide this generel propenſity to Truth, the *Underſtanding* muſt know what is *ſo*, before it can aſſent. The former we poſſeſs (it may be) as entirely as when Nature gave it us: but of the latter, little but the capacity: So that herein have we made our ſelves of all creatures the moſt miſerable. And now, ſuch an Infinite of *uncertain opinions*, bare *probabilities*, ſpecious *falſhoods*, ſpreading themſelves before us, and ſolliciting



our belief, and we being thus greedy of *Truth*, and yet ſo unable to diſcern it: it cannot be, that we ſhould reach it any otherwiſe, then by the moſt cloſe *meditation* and engagement of our minds; by which we muſt endeavour to eſtrange our aſſent from every thing, which is not *clearly* and *diſtinctly* evidenc't to our *faculties*. But this is ſo difficult; and as hath been intimated, ſo almoſt inſeaſable; that it may well drive modeſty to deſpair of *Science*. For though poſſibly *Aſſiduity* in the moſt fixed cogitation be no trouble or pain to *immaterializ'd ſpirits*; yet is it more, then our *embodied ſouls* can bear without laſſitude or diſtemper. For in this *terreſtrial* ſtate there are few things tranſacted, even in our *Intellectual* part, but through the help and furtherance of *corporal* Inſtruments; which by more then ordinary uſage loſe their edge and fitness for action, and ſo grow inept for their reſpective deſtinations. Upon this account our *ſenſes* are dull'd and ſpent by any extraordinary intention; and our very *Eyes* will ake, if long fixt upon any difficultly diſcerned object. Now though *Meditation* be to be reckoned among the moſt abſtracted operations of our minds; yet can it not be performed without a conſiderable proportion of *Spirits* to aſſiſt the Action, though indeed ſuch as are furniſh't out of the bodies purer ſtore. Which I think to be clear from hence, in that fixed ſeriousneſs herein, heats the brain in ſome to diſtraction, cauſeth an aking and dizeineſs in ſounder heads, hinders the works of Nature in its lower and  
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animal functions, takes away or leſſens pain in diſtemper'd parts, and ſeldom leaves any but under a wearyſome dulneſs, and inactivity: Arguments of ſufficient validity to juſtifie our aſſent to this, that the *ſpirits* are imploy'd in our moſt *intense* cogitations, yea in ſuch, whoſe objects are leaſt *material*. Now the managing and carrying on of this work by the *Spirits* instrumental *co-efficiency* requires, that they be kept together without diſtraction or diſſipation; that ſo they may be ready to receive and execute the orders and commiſſions of the commanding faculty. If either of theſe happen, all miſcarries: as do the works of Nature, when they want that *heat*, which is requiſite for their intended *perfection*. And therefore, for the prevention of ſuch inconveniences in *meditation*, we chooſe reſeſ and ſolitude.

But now if we conſider the *volatils* nature of thoſe *officious Aſſiſtants*, and the ſeveral cauſes which occur continually, even from the meer *Mechaniſm* of our Bodies to ſcatter and diſorder them, beſides the excuſions of our roving *phancies* ( which cannot be kept to a cloſe attendance ); it will be found very hard to retain them in any long ſervice, but do what we can, they'l get looſe from the Minds *Regimen*. So that it's no eaſie matter to bring the body to be what it was intended for, the *Souls ſervant*; and to confine the *imagination*, of as facil a performance, as the *Goteham's* deſign of hedging in the *Cuckow*. And though ſome conſtitutions are genially diſpoſited to this mental ſeriousneſs;



yet they can ſcarce ſay, *Nos numeri ſumus*: yea in the moſt advantag'd tempers, this diſpoſition is but *comparative*; when as the moſt of men labour under diſadvantages, which nothing can rid them of, but that which looſens them from this maſs of fleſh. Thus the boyling blood of youth, fiercely agitating the fluid Air, hinders that ſerenity and fixed ſtayedneſs, which is neceſſary to ſo ſevere an intentneſs: And the frigidity of decrepit age is as much its enemy, not only through penury of *ſpirits*, but by reaſon of its dulling moiſture. And even in the temperate *zone* of our life, there are few bodies at ſuch an *equipoiz* of humours; but that the prevalence of ſome one indiſpoſeth the *Spirits* for a work ſo difficult and ſerious: For *temper amentum ad pondus*, may well be reckon'd among the *Philosophical unattainables*. Beſides, the buſtle of buſineſs, the avocations of our ſenſes, and external pleaſures, and the noiſe and din of a clamorous world, are impediments not to be maſter'd by feeble endeavours. And to ſpeak the full of my Sentiments, I think never man could boaſt it, without the Precincts of *Paradiſe*; but *He*, that came to gain us a better *Eden* than we loſt.

So then, to direct all this to our end, the mind of man being thus naturally amorous of, and impatient for *Truth*, and yet averſe to, and almoſt incapacitated for that diligent and painful ſearch, which is neceſſary to its diſcovery; it muſt needs take up ſhort, of what is really ſo, and pleaſe it ſelf in the poſſeſſion of imaginary appearances,

pearances, which offering themselves to its embraces in the borrowed attire of that, which the *enamour'd Intellect* is in pursuit of, our impatient minds entertain these counterfeits, without the least suspicion of their countenance. For as the *Will*, having lost its true and substantial *Good*, now courts the shadow, and greedily catches at the vain shews of *superficial* bliss: so our no less degenerate *understandings* having suffered as sad a divorce from their dearest object, are as forward to defile themselves with every meretricious semblance, that the variety of opinion presents them with. Thus we see the inconsiderate vulgar, prostrating their assent to every shallow appearance: and those, who are beholden to *Prometheus* for a finer mould, are not furnisht with so much truth as otherwise they might be owners of, did not this *precipitancy* of *concluding* prevent them: As 'tis said of the industrious *Chymist*, that by catching at it too soon, he lost the long expected treasure of the *Philosophical Elixir*. Now this precipitancy of our understandings is an occasion of a double error, very injurious to the encrease of Knowledge. To instance,

(1.) Hence we conclude many things *Impossible*, which yet are easie *Feasable*. For by an unadvised transiliency leaping from the effect to its remotest cause, we observe not the connexion through the interposal of more immediate causalities; which yet at last bring the extreams together without a *Miracle*. And here-



upon we hastily conclude *that impossible*, which we see not in the proximate capacity of its *Efficient*. That a single *Hair* should root up an *Oak* (which the *Mathematicks* teach us to be possible) by common heads will be thought an absurd and extravagant expectation. And the relation of *Archimedes's* lifting up the ships of *Marcellus*, among many finds but little more credit, then that of the *Gyants* shouldering *Mountains*: And yet *Mathematicians* know, that by multiplying of *Mechanical* advantages, any power may conquer any resistance, and the great *Syracusan* Wit wanteth but *Tools*, and a place to stand on, to remove the *Earth*. So that the brag of the *Ottoman*, [*That he would throw Malta into the Sea*] might be performed at an easier rate, then by the *Shovels* of his *Janizaries*.

And (2.) from this last noted head, ariseth that other of *joyning causes with irrelative effects*, which either refer not at all unto them, or in a remoter capacity. Hence the *Indian* conceiv'd so grossly of the *Letter*, that discover'd his Theft; and that other, who thought the *Watch* an *Animal*. From hence grew the impostures of *Charmes*, and *Amulets*, and other insignificant ceremonies; which to this day impose upon common belief, as they did of old upon the *Barbarism* of the incultivate *Heathen*. Thus effects unusual, whose causes run under ground, and are  
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more remote from ordinary discernment, are noted in the Book of *Vulgar Opinion*, with *Digitus Dei*, or *Demonis*; though they owe no other dependence to the *first*, then what is common to the whole *Syntax* of beings, nor yet any more to the *second*, then what is given it by the imagination of those unqualifi'd Judges. Thus every unwonted *Meteor* is portentous; and the appearance of any unobserved *Star*, some divine *Prognostick*. Antiquity thought *Thunder* the immediate voyce of *Jupiter*, and impleaded them of impiety, that referr'd it to natural causalities. Neither can there happen a *storm*, at this remove from *Antique* ignorance, but the multitude will have the *Devil* in't.

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## CHAP. XV.

*The ſixth Reaſon diſcourſ't of, viz. the intereſt which our Affections have in our Dijudications. The cauſe why our Affections miſlead us; ſeveral branches of this mention'd; and the firſt, viz. Conſtitutional Inclination largely inſiſted on.*

**A** Gain (6.) we owe much of our *Errour* and *Intellectual ſcarcity* to the *Interſt* in, and power which our *affections* have over our ſo eaſie ſeducible Underſtandings. And 'tis a truth well worthy the Pen, from which it dropt; *Periit Judicium, ubi res tranſiit in Affectum*. That *Jove* himſelf cannot be wiſe and in *Love*; may be underſtood in a larger ſenſe, then *Antiquity* meant it. *Affection* bribes the Judgement to the moſt notorious inequality; and we cannot expect an equitable award, where the Judge is made a Party: So that, that underſtanding only is capable of giving a juſt deciſion, which is, as *Ariſtotle* ſaith of the *Law*, *Nous artu ipeſtos*: But where the *Will*, or *Paſſion* hath the caſting voyce, the caſe of *Truth* is *deſperate*. And yet this is the miſerable diſorder, into which we are

are laps'd: The lower Powers are gotten uppermoſt; and we ſee like men on our heads, as Plato obſerv'd of old, that on the right hand, which indeed is on the left. The Woman in us, ſtill proſecutes a deceit, like that begun in the Garden: and our Underſtandings are wedded to an Eve, as fatal as the Mother of our miſeries. And while all things are judg'd according to their ſuitableneſs, or diſagreement to the Guſto of the fond Feminine; we ſhall be as far from the Tree of Knowledge, as from that which is guarded by the Cherubin. The deceiver ſoon found this ſoft place of Adam's; and Innocency it ſelf did not ſecure him from this way of ſeduction. The firſt deception enter'd in at this Poſtern, and hath ever ſince kept it open for the entry of Legion: ſo that we ſcarce ſee any thing now but through our Paſſions, the moſt blind, and ſophiſticate things about us. The Monsters which ſtory relates to have their Eyes in their breſts, are pictures of us in our inviſible ſelves. Our Love of one Opinion induceth us to embrace it; and our Hate of another, doth more then fit us, for its rejection: And, that Love is blind, is extenſible beyond the object of Poetry. When once the affections are engag'd, there's but a ſhort ſtep to the Underſtanding: and, *Facile credimus quod volumus*, is a truth, that needs not plead Authority to credit it.

The reaſon, I conceive, is this: Love as it were uniting the Object to the Soul, gives it a kind of Identity with us; ſo that the beloved Idea is but our ſelves in another Name:



*Name*: and when *self* is at the bar, the sentence is not like to be impartial: For every man is naturally a *Narcissus*, and each *passion* in us, no other but *self-love* sweetned by milder Epithets. We can love nothing, but what we find agreeable to our selves; and our desire of what is *so*, hath its first inducement from within us: Yea, we love nothing but what resembleth us; and whatever we applaud as good or excellent, is but *self* in a transcript, and *è contrà*. Thus to reach the highest of our *Amours*, and to speak all at once: We love our *friends*, because they are our *Image*; and we love our *God*, because we are *His*. So then, the *beloved Opinion* being thus wedded to the *Intellect*; the case of our *espoused self* becomes our own: And when we weigh our selves, *Justice* doth not use to hold the ballance.

Besides, all things being double-handed, and having the appearances both of *Truth*, and *Falshood*; where our *affections* have engaged us, we attend only to the former, which we see through a magnifying *Medium*: while looking on the latter, through the wrong end of the *Perspective*, which scants their dimensions, we neglect and contemn them. Yea, and as in corrupt judicial proceedings, the fore-stalled Understanding passes a peremptory sentence upon the single hearing of one Party; and so though it may chance to be right in the *conclusion*; is yet unjust and mistaken in the method of *Inference*.

But

But to give a more particular account of this Impoſture; our Affections engage us either,

(1.) By our Love to our Selfs; or,

(2.) By our Love to Others.

The former, in the Inſtances of,

(1.) *Natural diſpoſition.*

(2.) *Cuſtome and Education.*

(3.) *Interſt.* And

(4.) *Love of our own Productions.*

The latter, in the homage which is paid to *Antiquity*, and *Authority*.

Theſe are cauſes of our Miſtakes, and Arguments that we can ſcarce do otherwiſe. And therefore I ſpeak to them in their order.

1. *Congruity* of Opinions, whether true or falſe, to our *natural conſtitution*, is one great incentive to their reception: For in a ſenſe the *complexion* of the *mind*, as well as *manners*, follows the *Temperament* of the Body. On this account ſome men are genially diſpoſed to ſome *Opinions*, and naturally as averſe to others. And we *love* and *hate* without a known cauſe of either. Some Faces both of Perſons and Things, we admire and dote on: others, in our impartial apprehenſions no leſs deſerving our eſteem, we can behold without reſentment; yea it may be with an invincible diſregard. And I queſtion not, but *intellectual* re-

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presentations are received by us, with as unequal a Fate upon a bare *Temperamental Relish* or *Disgust*: The *Understanding* also hath its *Idiosyncrasies*, as well as other faculties. So that the great stirrs of the disputing World, are but the conflicts of the humours. *Superstition*, *Atheism*, and *Enthusiasm*, are tempers; not meer infusions of *Education*, and *Opinion*. Indeed the dull and unactive spirits that concern not themselves in *Theory*, follow the swinge of the common belief in which they were first instructed: But the more *vigorous* and *stirring* will fall into *that* of their particular *Crisis*. And when the humour is awakened, all the bonds of *Custom* and *Education* cannot hold them. The opinions which are suited to their respective tempers will make way to their assent, in spite of accidental preingagements. Thus *opinions* have their *Climes* and *National diversities*: And as some Regions have their proper *Vices*, not so generally found in others; so have they their mental depravities, which are drawn in with the air of their *Countrey*. And perhaps this is a considerable cause of the diversity of *Laws*, *Customes*, *Religions*, *natural* and *meral Doctrines*, which is to be found in the divided Regions of the inhabited Earth. Wherefore I wonder not at the *Idolatry* of the *Jewes* of old, or of the several parts of the world to this day, at the *sensual expectation* of the *Mussel-men*, the *circumstan-*  
*tial*

*tial* follies of the *Papiſts*; or the antick devotions of the barbarous *Indians*; ſince that the moſt ſenſeleſſe conceits and fooleries cannot miſs of Harbor, where affection grown upon the ſtock of a depraved conſtitution, hath endeared them.

And if we do but more nearly look into our faculties, beginning our ſurvey from the loweſt dregs of ſenſe, even thoſe which have a nearer commerce with matter, and ſo by ſteps aſcend to our more ſpiritualiz'd ſelves: we ſhall thoroughly diſcover how conſtitutional partiality ſwayes us. To begin then at the Sences; that to one *Palate* is ſweet, and delicious, which to another, is odious and diſtaſtful; or more compendiouſly in the Proverb, *One mans meat, is anothers poiſon*. What to one is a moſt grateful odour, to another is noxious and diſpleaſant; and 'twere a miſery to ſome to lye ſtretch't on a bed of *Roſes*: That's a welcome touch to one, which is diſagreeing to another; The ſame *Aires* which ſome entertain with moſt delightful transports, to others are importune; and the objects which this man can't ſee without an *Extasie*, that is no more mov'd at than a *Statue*. If we paſs further, the phancies of men are ſo immediately diſverſify'd by the individual *Craſis*, that every man is in this a *Phœnix*; and owns ſomething wherein none are like him: and theſe are as many, as humane nature hath ſingulars. Now the phancies of the moſt,

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like the *Index* of a Clock, are moved but by the inward *Springs* and *Wheels* of the corporal *Machine*; which even on the most sublimed Intellectuals is dangerously *influential*. And yet this sits at the Helm of the Worlds belief; and *Vulgar Reason* is no better then a more *refined Imagination*. So then the *Senses*, *Phancy*, and what we call *Reason* it self, being thus influenc'd by the *Bodies temperament*, and little better then indications of it; it cannot be otherwise, but that this *Love of our selves* should strongly incline us in our most *Abstracted Dijudications*.

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CHAP. XVI.

*A ſecond thing whereby our Affections ingage us in Error; is the prejudice of Custom and Education. A third, Interest. The fourth, Love to our own Productions.*

2. **A** Nother branch of this *ſelfiſh fondneſs*, by reaſon of which we miſcarry of Science, is the almoſt inſuperable prejudice of *Custom, and Education*: by which our minds are encumber'd, and the moſt are held in a *Fatal Ignorance*. Yea could a man be compoſed to ſuch an advantage of conſtitution, that it ſhould not at all adulterate the images of his mind; yet this *ſecond nature* would alter the *cras*is of the Underſtanding, and render it as obnoxious to aberrances, as now. And though in the former regard, the Soul were a pure *ἀνεκδοκὸν ὑποκείμενον*; yet *custom and education* would ſcribe into an incapacity of new impreſſions. Thus we judge all things by our *anticipations*; and condemn or applaud them, as they agree or differ from our *fiſt receptions*. One Countrey laughs at the *Laws, Customs, and Opinions* of another,



as absurd and ridiculous; and the other is as charitable to them, in its conceit of theirs. This confirms the most sottish *Idolaters* in their accustomed adorations, beyond the conviction of any thing, but *Dooms-day*. The impressions of a barbarous *education* are stronger in them, then *nature*; when in their cruel *worships* they launce themselves with knives, and expose their harmless *Infants* to the flames as a Sacrifice to their *Idols*. And 'tis on this account, that there's no Religion so irrational, but can boast its *Martyrs*. This is it, which befriends the *Talmud* and *Alcoran*; and did they not owe their credit more to customary and præingag'd Assent, then to any rational inducement, we might expect their *ashes*: whereas *Education* hath so rooted these mis-believers in their ungrounded *faith*, that they may assoon be pluck't from themselves, as from their obstinate adherencies; and to convert a *Turk*, or *Jew*, may be well a phrase for an attempt *impossible*. We look for it *only* from him, to whom our *Impossibles* are *none*. And 'tis to be feared, that *Christianity* it self by most, that have espoused it, is not held by any better tenure. The best account that many can give of their *belief*, is, that they were *bred* in it; and the most are driven to their Religion by *custom* and *education*, as the *Indians* are to *Baptism*; that is, like a drove of Cattle to the water. So that had *Providence* determin'd our nativities among the Enemies of the *Cross*, and theirs under a *Christian* *horoscope*; in all likelihood we should have exchang'd the Scene of our belief

lieſ with that of our abode and *breeding*. There is nothing ſo abſurd, to which *education* cannot form our ductile *minority*; it can lick us into ſhapes beyond the *monſtroſities* of *Africa*. And as King *James* would ſay of *Parliaments*, *It can do any thing but make a Man a Woman*. For our initial age is like the melted wax to the prepared Seal, capable of any impreſſion from the documents of our Teachers. The *half-moon* or *Croſs*, are indifferent to its reception; and we may with equal facility write on this *Raſa Tabula*, Turk, or *Chriſtian*. To determine this indifferency, our firſt task is to learn the *Creed* of our Countrey; and our next to maintain it. We ſeldom examine our *Receptions*, more then children do their *Catechiſms*; but by a *careleſs greedineſs* ſwallow all at a venture. For *Implicit* faith is a virtue, where *Orthodoxie* is the object. Some will not be at the trouble of a Tryal: others are ſcar'd from attempting it. If we do, 'tis not by a *Sun-beam* or ray of univerſal light; but by a *flame* that's kindled by our *affections*, and fed by the fewel of our *anticipations*. And thus like the *Hermite*, we think the *Sun* ſhines no where, but in our *Cell*; and all the world to be darkneſs but our ſelves. We judge truth to be circumscrib'd by the confines of our belief, and the doctrines we were brought up in: and with as ill manners, as thoſe of *China*, repute all the reſt of the world, *Monoculous*. So that what ſome *Aſtrogers* ſay of our *Fortunes* and the paſſages of our lives; may by the allowance of a *Metaphor* be ſaid of our  
*Opinions*:



*Opinions*: That they are written in our *stars*, being to the most as fatal as those involuntary occurrences, and as little in their Power as the *placits* of *destiny*. We are bound to our Countreys *Opinions*, as to its *Laws*: and an accustomed assent is tantamount to an infallible conclusion. He that offers to dissent, shall be an *Out-law* in reputation: and the fears of guilty *Cain*, shall be fulfilled on him, who ever meets him *shall slay him*. Thus *Custom* and *Education* have sealed the *Canon*; and he that adds or takes away from the Book of *Orthodox* belief, shall be more then in danger of an *Anathema*: And the *Inquisition* is not confined to the jurisdiction of the *Triple-Crown*. The rankest follies are *Sacred*, if *customary*; and the *Fashion* is *handsome*, and *agreeable*, though never so *uncouth* to an unconcern'd beholder. Their *antick* deckings with *feathers* is as comly in the account of those barbarous Nations, which use them; as the Ornaments of *Lace*, and *Ribband*, are in ours. And the plucking off the shoe is to the *Japonians* as decent a salutation, as the uncovering of the *head* is to us, and their abhorred *neighbours*. And as we are fond of every thing with which *custom* hath acquainted us; so on the other hand we start and boggle at every *unusual* appearance, and cannot endure the sight of the *bug-bear*, *Novelty*. On this account very innocent truths are often affix'd with the reproach of *Hereſie*; and made terrible things in the imaginations of their misinform'd and frighted enemies; who like children scared in the dark, fly the *Monsters*

*Monsters* of their *Phancies*, and dare not stay to take a true account of the object of their fears. So that there is scarce any truth, but it's adversaries have made it an ugly *Vizard*; by which it's exposed to the hate and disesteem of superficial examiners: For an opprobrious title with vulgar believers is as good as an *Argument*. And 'tis but writing the name, that customary receptions have discredited, under the opinions we dislike; and all other refutation is superfluous. Thus shallow apprehenders are frightened from many sober *Verities*; like the King of *Arabs*, who ran away from the *smoaking Mince-Py*, apprehending some dangerous plot in the harmless steam.

So then, while we thus mistake the infusions of education, for the principles of universal nature; we must needs fail of a *scientific Theory*. And therefore the two Nations differing about the antiquity of their Language, made appeal to an undecisive experiment; when they agreed upon the tryal of a child brought up among the wild Inhabitants of the Desert. The Language it spake, had no reason to be accounted the most ancient and natural: And the lucky determination for the *Phygians* by its pronouncing the word *Beck*, which signified Bread in the dialect of that Countrey, they owed not to Nature, but the Goat-herd; from which the exposed Infant, by accompanying that sort of animals, had learnt it.



Again (3.) *Interest* is another thing, by the *magnetisme* of which our *affections* are almost irresistibly attracted. It is the *Pole*, to which we turn, and our *sympathizing* Judgements seldom decline from the *direction* of this *Impregnant*. Where *Interest* hath engaged men; they'l find a way to Truth, or make one. Any thing is good and true, to one whose *Interest* it is, to have it so. And therefore Self-designers are seldom disappointed, for want of the speciousness of a cause to warrant them; in the belief of which, they do oft as really impose upon themselves, as they industriously endeavour it upon others. With what an infinite of *Law-suits*, *controversies*, and *litigious cases* doth the world abound? and yet every man is confident of the truth and goodness of his own. And it may be as Master *Hobbs* observes, one reason that *Mathematical demonstrations* are uncontroverted, is, because *Interest* hath no place in those unquestionable *verities*: when as, did the advantage, of any stand against them, perhaps *Euclids Elements* would not pass with so universal a suffrage. Sir *H. Blunt* tells us, that temporal expectations bring in droves to the *Mahometan Faith*; and we know the same holds thousands in the *Romish*. The *Eagles* will be, where the *carcase* is; and that shall have the faith of most, which is best able to

to pay them for't. An advantageous cauſe never wanted *Proſelytes*. I confeſs, I cannot believe all the learned *Romaniſts* profeſs againſt their conſcience; but rather, that their *Interſt* brings their conſciences to their *Profeſſion*; and ſelf-advantage can as eaſily incline ſome, to believe a falſhood, as profeſs it. A good will, help'd by a good wit, can find Truth any where: and, what the *Chymiſts* brag of their *Elixir*, it can tranſlate any metal into gold, in the hand of a ſkilful Artificer, in ſpight of the Adage, *Ex quolibet ligno Mercurius*. Though yet I think, that every Religion hath its bare *Nominals*: and that Pope was one with a witneſs, whole ſaying it was, *Quantum nobis lucri peperit illa fabula de Chriſto!*

4. Beſides, fourthly, *Self-love* engageth us for any thing, that is a *Minerva* of our own. And thereby detains us in the ſnares of ignorance and folly. We love the iſſues of our *Brains*, no leſs then thoſe of our *bodies*: and fondneſs of our own begotten notions, though *illegitimate*, obligeth us to maintain them. We hugge intellectual deformities, if they bear our Names; and will hardly be perſwaded they are ſo, when our ſelves are their *Authors*. If their *Dam* may be judge, the young *Apes* are the moſt beautiful things in Nature; and if we might determine it, our proper conceptions would be all voted *Axioms*. Thus then



the *Female* rules, and our *Affections* wear the breeches : while our *Understandings* govern , as the story saith *Themistocles* did *Athens*. So that to give the sum of all , most of the contests of the litigious world pretending for *Truth* , are but the bandyings of one mans *affections* against anothers : in which , though their reasons may be foil'd , yet their *Passions* lose no ground , but rather improve by the *Antiperistasis* of an opposition.

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CHAP. XVII.

5. *Our Affections are engaged by our Reverence to Antiquity and Authority. This hath been a great hinderer of Theoretical improvements; and it hath been an advantage to the Mathematicks, and Mechanicks Arts, that it hath no place in them. Our mistake of Antiquity. The unreasonableness of that kind of Pedantick Adoration. Hence the vanity of affecting impertinent quotations. The Pedantry on it is derided; the little improvement of Science through its successive derivations, and whence that hath hapned.*

**A** Nother thing, that engageth our *affections* to unwarrantable conclusions, and is therefore fatal to Science; is our doting on *Antiquity*, and the opinion of our *Fathers*. We look with a superstitious reverence upon the accounts of *præterlapsed* ages: and with a supercilious severity, on the more deserving products.



products of our own. A vanity, which hath possess'd all times as well as ours; and the *golden Age* was never present. For as in *Statick* experiment, an inconsiderable weight by virtue of its distance from the Centre of the Ballance, will preponderate much greater magnitudes; so the most slight and chaffy opinion, if at a greater remove from the present age, contracts such an esteem and veneration, that it out-weighs what is infinitely more ponderous and rational, of a *modern* date. And thus, in another sense, we realize what *Archimedes* had only in *Hypothesis*; weighing a single grain against the *Globe* of Earth. We reverence gray-headed *Doctrines*; though feeble, decrepit, and within a step of dust: and on this account maintain opinions, which have nothing but our *charity* to uphold them. While the *beauty* of a Truth, as of a *picture*, is not acknowledg'd but at a *distance*; and that wisdom is nothing worth, which is not fetcht from *afar*: wherein yet we oft deceive ourselves, as did that *Mariner*, who mistaking them for precious stones, brought home his ship fraught with common *Pebbles* from the remotest *Indies*. Thus our *Eyes*, like the *preposterous Animals*, are behind us; and our Intellectual motions *retrograde*. We adhere to the determinations of our fathers, as if their *opinions* were entail'd on us as their *lands*; or (as some conceive) part of the Parents soul were portion'd out to his off-spring, and the conceptions of our minds were *ex traduce*. The *Sages* of old live again in us; and in opinions there is a *Metempsychosis*.

*temphychoſis.* We are our re-animated *Anceſtours*, and antedate their *Reſurrection*.

And thus, while every age is but another ſhew of the former; 'tis no wonder, that Science hath not out-grown the dwarfiſhneſs of its *pristine ſtature*; and that the *Intellectual world* is ſuch a *Microcoſm*. For while we account of ſome admired Authors, as the *Seths Pillars*, on which all knowledge is engraven; and ſpend that time and ſtudy in defence of their *Placits*, which with more advantage to Science might have been employ'd upon the Books of the more ancient, and *universal Author*: 'Tis not to be admired, that Knowledge hath receiv'd ſo little improvement from the endeavours of many pretending promoters, through the continued ſeries of ſo many ſucceſſive ages. For while we are ſlaves to the *Dictates* of our *Progenitours*; our discoveries, like *water*, will not run higher then the *Fountains*, from which they own their derivation. And while we think it ſo piaculous, to go beyond the *Ancients*; we muſt neceſſarily come ſhort of genuine *Antiquity, Truth*; unleſs we ſuppoſe them to have reach'd perfection of Knowledge in ſpight of their own acknowledgements of *Ignorance*.

Now if we enquire the reaſon, why the *Mathematicks*, and *Mechanick Arts*, have ſo much got the ſtart in growth of other *Sciences*: we ſhall find it probably reſolv'd into this, as one conſiderable cauſe: that their progreſs hath not been retarded by that reverential aw of former discoveries, which hath been ſo great an hinderance



hinderance to Theorical improvements. 'Twas never an heresie to out-limn *Apelles*; nor criminal to out-work the *Obelisks*. *Galilaus* without a crime out-saw all *Antiquity*, and was not afraid to believe his eyes, in spight of the *Opticks* of *Ptolomy* and *Aristotle*. 'Tis no discredit to the *Telescope* that Antiquity ne're saw in't: Nor are we shy of assent to those *celstial* informations, because they were *hid from ages*. We believe the *verticity* of the *Needle*, without a Certificate from the *dayes of old*: And confine not our selves to the sole conduct of the *Stars*, for fear of being wiser then our Fathers. Had *Authority* prevail'd here, the Earths *fourth part* had to us been none, and *Hercules* his Pillars had still been the worlds *Non ultra*: *Seneca's* Prophesie had been an un-fulfill'd Prediction, and one moiety of our *Globes*, an empty *Hemisphere*.

In a sense, *Tà ἀρχαία νομοθεσία*, is a wholesom instruction; and becoming the Vote of a *Synod*: But yet, in common acceptation, it's an Enemy to Verity, which can plead the *antiquity* of above *six thousand*; and bears date from before the *Chaos*. For, as the Noble Lord *Verulam* hath noted, we have a mistaken apprehension of *Antiquity*; calling that so, which in truth is the worlds *Nonage*. *Antiquitas seculi est juvenus Mundi*. So that in such appeals, we fetch our knowledge from the *Cradle*; which though it be nearest to *Innocence*, it is so too to the fatal ruines which follow'd it. Upon a true account, the *present age* is the worlds *Grandevity*;

devity; and if we muſt to *Antiquity*, Let multitude of dayes ſpeak. Now for us to ſuperſede further diſquiſition, upon the immature acquirements of thoſe Juvenile endeavours, is fooliſhly to neglect the nobler advantages we are owners of, and in a ſenſe to diſappoint the expectations of him that gave them. Yet thus hath the world prevented it ſelf of *Science*. And aged Knowledge, is ſtill an *Infant*. We ſuperſtitioſly ſit down in the Acquiſitions of our Fathers; and are diſcouraged from attempting further then they have gone before us. So that, but for the undertakings of ſome glorious perſons, who now and then ſhine upon the world, *Plato's* year might have found us, where the dayes of *Ariſtotle* left us. For my part, I think it no ſuch arrogance, as ſome are pleaſed to account it, that almoſt two thouſand years elapſed ſince, ſhould weigh with the ſixty three of the *Stagirite*. If we owe it to him, that we know ſo much; 'tis perhaps long of his fond adorers that we know ſo little more. I can ſee no ground, why his Reason ſhould be *textuary* to ours; or that God, or Nature, ever intended him an *Universal Headſhip*. 'Twas this vain Idolizing of Authors, which gave birth to that ſilly vanity of *impertinent citations*; and inducing *Authority* in things neither requiring, nor deſerving it. That ſaying was much more obſervable, *That men have beards, and women none*; becauſe quoted from *Beza*: and that other, *Pax res bona eſt*; becauſe brought in with a, ſaid *St. Auguſtine*. But theſe ridiculous fooleries, ſignifie no  
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thing to the more generous discerners, but the *Pedantry* of the affected *Sciolist*. 'Tis an inglorious acquist to have our heads or Volumes laden, as were Cardinal *Campeius* his Mules, with old and useless luggage: And yet the magnificence of many high pretenders to Science, if laid open by a true discovery, would amount to no more then the old *Boots* and *Shoes*, of that proud, and exposed *Embassadour*. Methinks 'tis a pitiful piece of Knowledge, that can be learnt from an *Index*; and a poor Ambition to be rich in the Inventory of anothers Treasure. To boast a *memory* (the most that these Pedants can aim at) is but an humble ostentation. And of all the faculties, in which some Brutes out-vie us, I least envy them an excellence in that; desiring rather to be a *Fountain*, then an *Hogs-head*. 'Tis better to own a Judgment, though but with a *Curta supellex* of coherent notions; then a *memory*, like a Sepulchre, furnished with a load of broken and discarnate bones. *Authorities* alone with me make no number, unless Evidence of Reason stand before them: For all the *Cyphers* of *Arithmetick*, are no better then a single *nothing*. And yet this rank folly of affecting such impertinencies, hath overgrown our Times; and those that are Candidates for the repute of *Scholars*, take this way to compass it. When as multiplicity of reading, the best it can signifie, doth but speak them to have taken pains for it: And this alone is but the dry and barren part of Knowledge, and hath little reason to denominate. A number of *Receipts* at the best can but make an *Emperick*.  
But

But again, to what is more perpendicular to our discourse, if we impartially look into the remains of *Antique* Ages; we shall finde but little to justifie so groundless a Tyranny, as *Antiquity* hath impos'd on the enslaved world. For it we take an account of the state of *Science*, beginning as high as *History* can carry us; we shall find it still to have lain under such unhappy disadvantages as have hindred it's advance in any considerable degrees of improvement. And though it hath oft chang'd its Channel, by its remove from one Nation to another; yet hath it been little more alter'd, then a *River* in its passage through differing *Regions*, viz. in *Name* and *Method*. For the succeeding times still subscribing to, and copying out those, who went before them, with little more then *verbal* diversity; *Science* hath still been the same pitiful thing, though in a various *Livery*. The *Græcian* learning was but a transcript of the *Chaldean* and *Ægyptian*; and the *Roman* of the *Græcian*. And though those former dayes have not wanted brave *Wits*, that have gallantly attempted; and made *Essays* worthy *Immortality*; yet by reason either of the unqualified capacities of the multitude, (who dote on things slight and trivial, neglecting what is more rare and excellent) or the clamorous assaults of envious and more popular opposers, they have submitted to Fate, and are almost lost in *Oblivion*. And therefore, as that great man, the *Lord Bacon* hath observ'd, *Time* as a *River*, hath brought down to us what is more light and superficial; while things more solid and substantial have been im-



merged. Thus the *Aristotelian Philosophy* hath prevailed; while the more excellent and more *Antient Atomical Hypothesis* hath long lain buried in neglect and darkness, and for ought I know, might have slept for ever, had not the ingenuity of the present age, recal'd it from its *urne* and *silence*. But it is somewhat collateral to my scope, as well as disproportion'd to my abilities, to fall upon particular Instances of the defects and Errours of the *Philosophy* of the *Antients*. The foremention'd noble *Advancer of Learning*, whose name and parts might give credit to any undertaking; hath handsomly perform'd it, in his ingenious *Novum Organum*. And yet, because it may conferr towards the discovery of how little our adherence to *Antiquity* befriends *Truth*, and the encrease of *Knowledge*; as also how groundless are the *Dogmetists* high pretensions to *Science*: I shall adventure some considerations on the *Peripatetick Philosophy*; which hath had the luck to survive all others, and to build a fame on their *Ruines*.

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## CHAP. XVIII.

REFLEXIONS on the PERIPATETICK  
PHILOSOPHY.

*The Generality of its Reception, no Argument of its deserts; the first charge against that Philosophy; that it is meerly verbal. Materia prima in that Philosophy signifies nothing. A Parallel drawn between it and Imaginary Space: this latter pleads more for its reallity. Their Form also is a meer word, and potentia Materiae insignificant. Privation no principle. An essay to detect Peripatetick Verbosity, by translating some definitions.*

**H**OW Aristotles Philosophy came, so universally to obtain in these later Ages, to the silencing the Zoroastrian, Pythagorean, Platonical, and Epicurean Learning, is not my business here to inquire. Worth is not to be judg'd by Success, and Retinue; only we may



take notice, that the *Generality* of it's reception is with many the *persuading* Argument of it's *superlative* desert. And common Judges measure *excellency* by *Name* and *Numbers*. But *Seneca's* determination, *Argumentum peſſimi Turba eſt*, is more deſerving our credit: and the *feweſt*, that is the *wiſeſt*, have alwayes ſtood contradictory to that ground of belief; *Vulgar* applauſe by ſeverer *Wiſdom* being held a ſcandal. If the numerousneſs of a *Train* muſt carry it, *Virtue* may go follow *Aſtræa*, and *Vice* only will be worth the courting. The *Philosopher* deſervedly ſuſpected himſelf of vanity, when cryed up by the multitude: And diſcreet apprehenders will not think the better of that *Philophy*, which hath the common cry to vouch it. He that writ counter to the *Aſtrologer* in his *Almanack*, did with more truth foretell the *weather*: and he that ſhall write *Foul*, in the place of the *Vulgars Fair*; paſſes the juſter cenſure. Thoſe in the *Fable*, who were wet with the ſhowre of *folly*, hooted at the *wiſe men* that eſcap'd it, and pointed at their actions as *ridiculous*; becauſe unlike their own, that were truly *ſo*. If the major Vote may caſt it, *Wiſdom* and *Folly* muſt exchange names; and the way to the one will be by the other. Nor is it the *Rabble* only, which are ſuch perverſe diſcerners; we are now a ſpear above them: I mean the *multitudo* of pretended *Philophers*, who judge as oddly in their way, as the *Raſcality* in theirs; and many a profeſt Retainer to *Philophy*, is but an *Ignoramus* in a ſuit of *ſecond Notions*. 'Tis ſuch, that moſt revere the  
Reliques

Reliques of the Adored *Sophy*; and, as *Artemesia* did those of *Mausolus*, passionately drink his *ashes*. Whether the Remains of the *Stagarite* deserve such *Veneration*, we'll make a brief enquiry.

In the conduct of which design, 6 Things I offer against that *Philosophy*, viz. (1.) That 'tis meerly *Verbal*, and (2.) *Litigious*. That (3.) It gives no account of the *Phenomina*. Nor (4.) doth it make any *discoveries* for the use of common *Life*. That (5.) 'tis inconsistent with *Divinity*, and (6.) with it *self*. Which charges how just they are, I think will appear in the sequell.

To the *First* then. That the *Aristotelian Philosophy* is an huddle of words and terms insignificant, hath been the censure of the wisest: And that both its *Basis* and *Superstructure* are *Chimairical*; cannot be unobserv'd by them, that know it, and are free to judge it. To detect the verbal Emptiness of this *Philosophy*, I'll begin at the Foundation of the *Hypothesis*. For I intend but few, and those shall be *signal Instances*.

(1.) Therefore the *Materia prima* of this *Philosophy*, shall be that of my *Reflections*. In the consideration of which I shall need no more then the notion wherein *Aristotle* himself hath dress'd it; for evidence of what I aim at; for, *Nec quid, nec quale, nec quantum*, is as opposite a definition of *Nothing*, as can be. So that if we would conceive this *Imaginary Matter*: we must deny all things of it, that we can conceive, and what remains is the thing we look for. And allowing all which its  
Assertors



Assertors assign it, viz. *Quantity interminate*; 'tis still but an empty extended capacity, and therefore at the best, but like that *Space*, which we imagine was before the beginning of *Time*, and will be after *It*. 'Tis easie to draw a *Parallelism* between that *Ancient*, and this more *Modern Nothing*; and in all things to make good its resemblance to that *Commentitious Inanity*. The *Peripatetic matter* is a pure unactuated Power: and this conceited *Vacuum* a meer Receptibility. *Matter* is suppos'd indeterminate: and *Space* is so. The pretended first matter is capable of all forms: And the imaginary space is receptive of any body. *Matter* cannot naturally subsist uninform'd: And *Nature* avoids vacuity in space. The matter is ingenerate, and beyond corruption: And the space was before, and will be after either. The matter in all things is but one: and the space most uniform. Thus the Foundation-Principle of *Peripateticism* is exactly parallel to an acknowledg'd nothing: and their agreement in essential characters makes rather an *Identity*, then a *Parity*; but that *Imaginary space* hath more to plead for its reality, then the matter hath, and in this consists the greatest dissimilitude. For that hath no dependence on the bodies which possess it; but was before them, and will survive them: whereas this essentially relies on the form and cannot subsist without it. Which yet, me thinks, is little better then an *absurdity*: that the cause should be an *Eleemosynary* for its subsistence to its effect, and a nature posterior to, and dependent on it self. This

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*dependentia a posteriori*, though in a diverse way of causality, my reason could never away with : yea, a Sectator of this *Philosophy*, Oviedo a Spanish Jesuite, hath effectually impugn'd it. So then there's nothing *real*, answering this Imaginary *Proteus* ; and *Materia prima* hath as much of being, as *Mons aureus*.

( 2. ) The *Peripatetick Forms* are as obnoxious, and on the same account lyable to our Reflections as the former Principle. I'll not spend time in an industrious confutation of what the Votaries of that *Philosophy* themselves can scarce tell what to make of : And the subject being dry and less suitable to those more *Mercurial* tempers for whom I intend these Papers : I'll only pass a Reflection on it, and proceed to what may be less importunate.

The *Form* then, according to this *Hypothesis*, is a new substance produced in all generations to actuate the *Matter* and *Passive Principle* ; out of whose *Power* 'tis said to be educed. And were it supposed to contain any thing of the *Form* præexisting in it, as the seed of the *Being* to be produced ; 'twere then sense to say, It was *Educed* from it ; but by *Educing*, the affirmers only mean a producing in it, with a subjective dependence on its Recipient : a worthy signification of *Eduction* ; which answers not the question whence 'tis derived, but into what it is received. The question is of the *terminus à quo*, and the answer of the *subject*. So that all that can be made of this power of the matter, is merely a receptive capacity :

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and



and we may as well affirm, that the world was educ'd out of the power of the imaginary space; and give that as a sufficient account of its Original. And in this language, to grow rich were to educe money out of the power of the Pocket. Wherefore, notwithstanding this Imaginary Education out of the power of the Matter; we are still to seek whether these Forms be produced out of something, or nothing; either of which supposed, bids defiance to the Hypothesis. For according to the first, all possible Forms will be actually latent in the Matter; which is contrary to the stream of the Peripatetick Doctors. And the latter as opposite to their Master's *Ex Nibilo Nihil*, and he acknowledged no Creation.

(3.) The third Principle of Bodies according to the Aristotelian Philosophy is Privation; concerning which, I'll add nothing but the words of the excellent Lord Montaigne, *Qu'est-il plus vain que de faire l'inanité mesme, cause la production des choses? La privation c'est une negative: de quel humeur en a-il peu faire la cause & origine des choses qui sont?*

But yet further, to give an hint more of the Verbofities of this Philosophy, a short view of a definition or two will be sufficient evidence; which, though in Greek or Latin they amuse us; yet a Translation unmasks them. And if we make them speak English, the cheat is transparent.

Light is *ENEPTIA TOT DIAΦANOT* saith that Philosophy: In English, the Act of a perspicuous Body. Sure Aristotle

*Aristotle* here transgres'st his own *Topicks*, and if this *Definition* be clearer and more known then the thing defined, *Midnight* may vie for *conspicuity* with *Noon*. Is not *Light* more known then this insignificant *Energy*? And what's a *diaphanous* body, but the *Lights medium* the *Air*? so that *Light* is the *Act of the Air*. And if *Lux* be *Umbra Dei*, this definition is *Umbra Lucis*. Thus is *Light* darkened by an *Illustration*, and the *symbol* of evidence, cloathed in the *Livery of Midnight*: As if *light* were best seen by *darkness*, as *Light inaccessible* is best known by *Iguorance*.

Again (2.) That *Motion* is ΕΝΤΕΛΕΧΙΑ ΤΟΥ ΟΝΤΟΣ ΕΝ ΔΥΝΑΜΕΙ, &c. is a definition of *Aristotle's*, and as culpable as the former. For, by the most favourable interpretation of that unintelligible *Entelechy*: It is but, *An act of a being in power, as it is in power*; the construing of which into palpable sense or meaning would poze a Critick. Sure that *Definition* is not very conspicuous, whose *Genus* puzzled the *Devil*. The *Philosopher* that prov'd *motion* by walking, did in that action better define it: And that puzzled *Candidate*, who being ask'd what a *circle* was, describ'd it by the *rotation* of his *band*; gave an account more satisfying. In some things we must indeed give an allowance for words of *Art*: But in defining obvious appearances, we are to use what is most plain and easie; that the mind be not misled by *Amphibologies*, or ill conceived notions, into fallacious deductions: which whether it be not the method of



*Peripatetick Philosophy* let the indifferent determine. To give an account of all the insignificancies, and verbal nothings of this *Philosophy*, would be almost to transcribe it. 'Tis a *Philosophy*, that makes most accurate Inspections into the *Creatures of the Brain*; and gives the exactest *Topography* of the *Extramundane spaces*. Like our late *Politicians*, it makes discoveries, and their objects too; and deals in beings, that owe nothing to the *Primitive Fiat*. The same undivided Essence, from the several circumstances of its being and operations, is here multiplyed into *Legion*, and improv'd to a number of smaller *Entities*; and these again into as many *Modes* and insignificant *formalities*. What a number of words here have nothing answering them? and as many are imposed at random. To wrest names from their known meaning to Senses most alien, and to darken *speech by words without knowledge*; are none of the most inconsiderable faults of this *Philosophy*: To reckon them in their particular instances, would puzzle *Archimedes*. Now hence the genuine *Idea's* of the Mind are adulterate: and the Things themselves lost in a crowd of *Names*, and *Intentional nothings*. Besides, these *Verbosities* emasculate the understanding; and render it slight and frivolous, as its objects.

Methinks, the late *Voluminous Jesuits*, those *Laplanders* of *Peripateticism*, do but subtilly trifle, and their *Philosophick* understandings are much like his, who spent his time in darting *Cumming-seed* through the *Eye of a Needle*.

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One would think they were impregnated, as are the Mares in *Cappadocia*; they are big of words: their tedious Volumes have the *Tympany*, and bring forth nought but wind, and vapour. To me, a *curſus Philoſophicus*, is but an Impertinency in *Folio*; and the ſtudying them a *laborious idleneſs*. 'Tis here, that things are crumbled into *notional Atomes*; and the ſubſtance evaporated into an *imaginary Æther*. The intelle& that can feed on this air, is a *Chamæleon*; and a meer *inflated* ſkin. From this ſtock grew *School-Divinity*, which is but *Peripateticism* in a *Theological Livery*. A *School-man* is the *Ghost* of the *Stagirite*, in a *Body* of condensed Air: and *Thomas* but *Ariſtotle Sainted*.

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CHAP.



## CHAP. XIX.

2. Peripatetick Philosophy is Litigious; it hath no ſetled conſtant ſignification of words; the inconveniences hereof. Aristotle intended the cheriſhing Controverſies: prov'd by his own double testimony. Some of his impertinent arguings inſtant in. Diſputes retard, and are injurious to knowledge. Peripateticks are moſt exerciſed in the Controverſal parts of Philoſophy, and know little of the practical and experimental. A touch at School-Divinity.

**B**Ut (2.) this Philoſophy is litigious, the very ſpawn of diſputations and controverſies as undeciſive as needleſs. This is the natural reſult of the former: Storms are the products of vapours. For where words are impoſed arbitrarily, having no ſtated real meaning; or elſe diſtorted from their common uſe, and known ſignifications: the mind muſt needs be led into confuſion

confuſion and miſpriſion; and ſo things plain and eaſie in their naked natures, made full of *intricacy* and diſputable *uncertainty*. For we cannot conclude with aſſurance, but from clearly apprehended *premiſes*; and theſe cannot be ſo conceiv'd, but by a *diſtinct* comprehension of the *words* out of which they are elemented. So that, where theſe are unfixt or ambiguous; our *propoſitions* muſt be ſo, and our *deductions* can be no better. One reaſon therefore of the uncontroverted certainty of *Mathematical Science* is; becauſe 'tis built upon clear and ſettled *ſignifications* of names, which admit of no *ambiguity* or insignificant *obſcurity*. But in the *Aristotelian* Philoſophy it's quite otherwiſe: Words being here careleſſly and abuſively admitted, and as inconfiantly retained; it muſt needs come to paſs, that they will be diverſly apprehended by contenders, and ſo made the ſubject of *Controverſies*, that are *endleſs* both for *uſe* and *number*. And thus being at their firſt ſtep out of the way to *Science*, by miſtaking in *ſimple terms*; in the progreſs of their enquiries they muſt needs loſe both themſelves, and the Truth, in a *Verbal Labyrinth*. And now the entangled Diſputants, as Maſter *Hobs* ingeniouſly obſerveth, like Birds that came down the Chimney; betake them to the false light, ſeldom ſuſpecting the way they entr'd: But attempting by vain, impertinent, and coincident diſtinctions, to eſcape the abſurdity that purſues them; do but weary themſelves with as little ſucceſs, as the ſilly Bird attempts the window.

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The mis-stated words are the original mistake; and every other essay is a new one.

Now these canting contests, the usual entertainment of the *Peripatums*, are not only the accidental *vitiosities* of the *Philosophers*; but the genuine issues of the *Philosophy* it self. And *Aristotle* seems purposely to intend the cherishing of *controversal digladiations*, by his own affectation of an intricate *obscurity*. Himself acknowledg'd, when he said; his *Physicks* were publish'd, and not so: And by that double advice in his *Topicks* 'tis as clear as light. In one place, he adviseth his Sectatours in disputations to be *ambiguous*: and in another, to bring forth any thing that occurs, rather then give way to their Adversary: Counsel very well becoming an Enquirer into Truth and Nature. Nor did he here advise them to any thing, but what he followeth himself, and exactly copies out in his practice: The multitudes of the *lame, abrupt, equivocal, self-contradicting* expressions, will evidence it as to the first part: which who considers, may be satisfied in this; that if *Aristotle* found *Natures face* under covert of a *veil*, he hath not removed the old, but made her a *new one*. And for the latter, his frequent slightness in arguing doth abundantly make it good. To instance:

He proves the *world* to be perfect, because it consists of *bodies*; and that *bodies* are so, because they consist of a *triple dimension*; and that a *triple dimension* is perfect, because *three* are *all*; and that *three* are *all*, because when 'tis but *one* or *two*, we can't say *all*, but when 'tis *three*, we may: Is not this

this an absolute *demonstration*? We can say All at the number *three*: Therefore the *world is perfect*. *Tobit* went forth and his *Dog* follow'd him; therefore there's a *world* in the *Moon*, were an argument as *Apodictical*. In another place (2.) he proves the *world* to be but *one*: For were there another, our *Earth* would fall unto it. Which is but a pitiful deduction, from the meer prejudice of *Sense*; and not unlike theirs, who thought, if there were *Antipodes*, they must needs (as it's said of *Erasmus*) in *Cælum descendere*. As if, were there more *worlds*, each of them would not have its proper *Centre*. Else-where (1.) shewing, why the *Heavens* move this way rather than another, he gives this for a reason: because they move to the more *honourable*; and *before* is more *honourable* than *after*. This is like the *Gallant*, who sent his man to buy an *Hat*, that would *turn up behind*. As if, had the *Heavens* moved the other way; that term had not been then *before*, which is now the contrary. This Inference is founded upon a very weak supposition, *viz.* That those alterable respects are realities in Nature; which will never be admitted by a considerate discerner. Thus *Aristotle* acted his own instructions; and his obsequious *Sectators* have super-erogated in observance. They have so disguised his *Philosophy* by obscuring *Comments*, that his revived self would not own it: And were he to act another part with mortals, he'd be but a pitiful *Peripatetick*; every *Sophister* would out-talk him.

Now this *disputing* way of Enquiry is so far from advancing



vancing *Science*; that 'tis no inconsiderable retarder: For in *Scientific* discoveries many things must be consider'd, which the hurry of a dispute indisposeth for; and there is no way to *Truth*, but by the most clear comprehension of *simple notions*, and as wary an accuracy in *deductions*. If the Fountain be disturb'd, there's no seeing to the bottom; and here's an exception to the Proverb, *'Tis no good fishing for Verity in troubled waters*. One mistake of either *simple apprehension*, or *connexion*, makes an *erroneous conclusion*. So that the precipitancy of *disputation*, and the stir and noise of *Passions*, that usually attend it, must needs be prejudicial to *Verity*: its calm insinuations can no more be heard in such a bustle, then a whisper among a croud of *Sailors* in a storm. Nor do the eager clamors of contending *Disputants*, yield any more relief to eclipsed *Truth*; then did the sounding *Brass* of old to the *labouring Moon*. When it's under question, 'twere as good flip *cross* and *pile*, as to dispute for't: and to play a game at *Chess* for an opinion in *Philosophy* (as my self and an ingenious Friend have sometime sported) is as likely a way to determine. Thus the *Peripatetick* procedure is inept for *Philosophical* solutions: The *Lot* were as equitable a decision, as their empty *Loquacities*.

'Tis these ungracious *Disputations* that have been the great hinderance to the more improvable parts of *Learning*: and the modern *Retainers* to the *Stagirite* have spent their sweat and pains upon the most litigious parts of his *Philosophy*; while those, that find less play for the  
contending

contending *Genius*, are incultivate. Thus *Logick*, *Phyſicks*, and *Metaphyſicks*, are the burden of Volumes, and the daily entertainment of the *Diſputing Schools*: while the more profitable doctrines of the *Heavens*, *Meteors*, *Minerals*, *Animals*; as alſo the more practical ones of *Politicks*, and *Oeconomicks*, are ſcarce ſo much as glanc'd at. And the indiſputable *Mathematicks*, the only Science Heaven hath yet vouchsaf't Humanity, have but few Votaries among the ſlaves of the *Stagirite*. What, the late promoters of the *Ariſtotelian Philoſophy*, have writ on all theſe ſo fertile ſubjects, can ſcarce compare with the ſingle diſputes about *Materia prima*.

Nor hath Humane Science monopoliz'd the damage, that hath ſprung from this Root of Evils: *Theology* hath been as deep a ſharer. The Volumes of the *Schoolmen*, are deplorable evidence of *Peripatetick depravations*: And *Luther's* cenſure of that Divinity, *Quam primum apparuit Theologia Scholaſtica, evanuit Theologia Crucis*, is neither uncharitable, nor unjuſt. This hath mudded the Fountain of Certainty with notional and Ethnick admixtions, and platted the head of *Evangelical truth*, as the *Jews* did its *Author's*, with a *Crown of Thorns*: Here, the moſt obvious Verity is ſubtiliz'd into niceties, and ſpun into a thread indiſcernible by common *Opticks*, but through the *ſpectacles* of the adored *Heathen*. This hath robb'd the *Chriſtian world* of its unity and peace, and made the Church, the Stage of everlaſting contentions: And while *Ariſtotle* is made the Center of Truth, and Unity,



what hope of reconciling? And yet moſt of theſe Scholaſtick controversies are ultimately reſolv'd into the ſubtilties of his *Philophy*: whereas me thinks an *Athenian* ſhould not be the beſt guide to the *ΘΕΟΣ ΑΙΝΩΣΤΟΣ*; Nor an *Idolater* to that God he neither knew nor own'd. When I read the eager conteſts of thoſe *Notional Theologues*, about things that are not; I cannot but think of that pair of *wiſe ones*, that fought for the *middle*: And me thinks many of their Controversies are ſuch, as if *we* and our *Antipodes*, ſhould ſtrive who were *uppermoſt*; their title to Truth is equal. He that divided his *Text* into *one part*; did but imitate the *Schoolmen* in their *coincident diſtinctions*: And the beſt of their *curioſities* are but like paint on Glaſs, which intercepts and dyes the light the more deſirable ſplendor. I cannot look upon their elaborate trifles, but with a ſad reflexion on the degenerate ſtate of our laſed Intellects; and as deep a reſentment, of the miſchiefs of this *School-Philophy*.

## CHAP. XX.

3. *It gives no account of the Phænomena; those that are remoter, it attempts not. It speaks nothing pertinent in the most ordinary: Its circular, and general way of Solution. It resolves all things into occult qualities. The absurdity of the Aristotelian Hypothesis of the Heavens. The Galaxy is no Meteor: the Heavens are corruptible. Comets are above the Moon. The Sphear of fire derided. Aristotle convicted of several other false assertions.*

3. **T**He *Aristotelian Hypotheses* give a very dry and jejune account of Nature's *Phænomena*.

For (1.) as to its more *mysterious* reserves, *Peripatetick* enquiry hath left them unattempted; and the most forward notional Dictators sit down here in a contented ignorance: and as if nothing more were knowable then is already discover'd, they put stop to



all endeavours of their Solution. *Qualities*, that were *Occult* to *Aristotle*, must be so to us; and we must not *Philosophize* beyond *Sympathy* and *Antipathy*: whereas indeed the *Rarities* of Nature are in these *Recesses*, and its most excellent operations *Cryptick* to common discernment. Modern Ingenuity expects Wonders from *Magnetick* discoveries: And while we know but its more sensible wayes of working; we are but vulgar *Philosophers*, and not likely to help the *World* to any considerable *Theories*. Till the *Fountains* of the great deeps are broken up; *Knowledge* is not likely to cover the *Earth* as the waters the *Sea*.

Nor (2.) is the *Aristotelian Philosophy* guilty of this sloth and Philosophick penury, only in remoter abstrusities: but in solving the most ordinary causalities, it is as defective and unsatisfying. Even the most common productions are here resolv'd into *Celestial influences*, *Elemental combinations*, *active* and *passive* principles, and such generalities; while the particular manner of them is as hidden as *sympathies*. And if we follow *manifest qualities* beyond the empty signification of their Names; we shall find them as *occult*, as those which are professedly so. That heavy Bodies descend by *gravity*, is no better an account then we might expect from a *Rustick*: and again, that *Gravity* is a *quality* whereby an heavy body descends, is an impertinet *Circle*, and teacheth nothing. The feigned *Central alliciency* is but a word, and the manner of it still *occult*. That the *fire* burns by a *quality* called *heat*; is an empty dry

dry return to the Question, and leaves us ſtill ignorant of the immediate way of *Igneous ſolutions*. The accounts that this *Philosophy* gives by other *Qualities*, are of the ſame *Gender* with theſe: So that to ſay the *Loadſtone* draws *Iron* by *magnetick attraction*, and that the *Sea* moves by *flux* and *reflux*; were as ſatisfying as theſe *Hypotheſes*, and the ſolution were as pertinent. In the *Qualities*, this *Philosophy* calls *manifeſt*, nothing is ſo but the effects. For the *heat*, we feel, is but the effect of the *fire*; and the *preſſure*, we are ſenſible of, but the effect of the *descending body*. And effects, whoſe cauſes are confeſſedly *occult*, are as much within the ſphear of our *Senſes*; and our *Eyes* will inform us of the motion of the *Steel* to its *attrahent*. Thus *Peripatetick Philosophy* reſolves all things into *Occult qualities*; and the *Dogmatists* are the only *Scepticks*. Even to them, that pretend ſo much to *Science*, the world is circumscrib'd with a *Gyges his ring*; and is *intelleſtually inviſible*: And, ΟΤ ΚΑΤΑΔΑΜΒΑΝΩ, is a fit Motto for the *Peripatum*. For by their way of diſquiſition there can no more be truly comprehended, then what's known by every common *Ignorant*. And ingenious inquiry will not be contented with ſuch vulgar *frigidities*.

But further, (3.) if we look into the *Ariſtotelian Comments* on the largeſt Volumes of the *Univerſe*: The works of the *fourth day* are there as confuſed and diſorderly, as the *Chaos* of the *fiſt*: and more like that, which was before the *light*, then the compleatly finiſh'd, and gloriouſly diſpoſed *frame*. What a *Romance* is the ſtory of  
those



thoſe impoſſible *concamerations*, *Interſections*, *Involutions*,  
 and feign'd *Rotations* of *ſolid Orbs*? All ſubſtituted to  
 ſalve the credit of a broken ill-contriv'd *Systeme*. The  
 belief of ſuch diſorders *above*, were an advantage to the  
*oblique Atheiſm* of *Epicurus*: And ſuch Irregularities in  
 the Celeſtial motions, would lend an Argument to the  
*Apotheioſis* of *Fortune*. Had the world been coagmented  
 from that ſuppoſed fortuitous Jumble; this *Hypotheſis*  
 had been tolerable. But to intitle ſuch *abrupt*, *confuſed*  
 motions to *Almighty Wiſdom*, is to degrade it below the  
 ſize of humane forecast and contrivance. And could the  
 doctrine of *ſolid Orbs*, be accommodated to *Aſtronomical*  
*Phænomena*; yet to aſcribe each *Sphear* an *Intelligence* to  
 circumvolve it, were an *unphilosophical* desperate refuge:  
 And to confine the bleſſed *Genii* to a Province, which  
 was the *Hell* of *Ixion*, were to rob them of their *Felicities*.  
 That the *Galaxy* is a *Meteor*, was the account of *Ariſtotle*:  
 But the *Telescope* hath autoptically confuted it: And he,  
 who is not *Pyrrhonian* to the diſ-belief of his Sences, may  
 ſee, that it's no exhalation from the Earth, but an heap  
 of ſmaller *Luminaries*. That the *Heavens* are void of *cor-*  
*ruption*, is *Ariſtotles* ſuppoſal: But the Tube hath betray'd  
 their impurity; and *Neoterick Aſtronomy* hath found *spots*  
 in the *Sun*. The diſcoveries made in *Venus*, and the *Moon*,  
 diſprove the *Antique Quinteſſence*; and evidence them of  
 as courſe materials, as the *Globe* we belong to. The *Per-*  
*ſpicil*, as well as the *Needle*, hath enlarged the *habitable*  
*World*; and that the *Moon* is an *Earth*, is no improbable  
 con-

conjecture. The *inequality* of its ſurface, *Mountainous protuberance*, the nature of its *Maculae*, and infinite other circumſtances (for which the world's beholding to *Galileo*) are Items not contemptible: *Hevelius* hath graphically deſcribed it: That *Comets* are of nature *Terreſtrial*, is allowable: But that they are material'd of vapours, and never flamed beyond the *Moon*; were a conceſſion unpardonable. That in *Caſſiopea* was in the *Firmanent*, and another in our age above the *Sun*. Nor was there ever any as low as the higheſt point of the *circumference*, the *Stagyrite* allows them. So that we need not be appall'd at *Blazing Stars*, and a *Comet* is no more ground for *Aſtrological preſages*, then a *flaming Chimney*. The unparallel'd *Des-Cartes* hath unridled their dark *Phyſiology*, and to wonder ſolv'd their *Motions*. His *Philophy* gives them tranſcuſſions beyond the *Vortex* we breath in; and leads them through others, which are only known in an *Hypotheſis*. *Ariſtotle* would have fainted before he had flown half ſo far, as that *Eagle-wit*; and have lighted on a *hard name*, or *occult quality*, to reſt him. That there is a *ſphear* of *fire* under the concave of the *Moon*, is a dream: And this, may be, was the reaſon ſome imagin'd *Hell* there, thinking thoſe flames the *Ignis Rota*. According to this *Hypotheſis*, the whole *Lunar* world is a *Torrid Zone*; and on a better account, then *Ariſtotle* thought ours was, may be ſuppoſed *inhabitable*, except they are *Salamanders* which dwell in thoſe *fiery Regions*. That the *Reflexion* of the *Solar Rays*, is terminated in the *Clouds*; was the opinion of



the *Gracian Sage* : But *Lunar* observations have convicted it of falshood ; and that Planet receives the *dustry* light, we discern in its *Sextile Aspect*, from the *Earth's* benignity. That the *Rainbow* never describes more then a *semicircle*, is no credible assertion ; since experimental observations have confuted it. *Gassendus* saw one at Sun-setting, whose Supreme *Arch* almost reached our *Zenith*, while the Horns stood in the *Oriental Tropicks*. And that Noble wit reprehends the *School-Idol*, for assigning fifty years at least between every *Lunar Iris*. That *Caucasus* enjoys the Sunbeams three parts of the *Nights Vigils* ; that *Danubius* ariseth from the *Pyrenaean Hills* : That the *Earth* is higher towards the *North* : are opinions truly charged on *Aristotle* by the *Restorer* of *Epicurus* ; and all easily confutable falsities. To reckon all the *Aristotelian* aberrances, and to give a full account of the lameness of his *Hypotheses* , would swell this *digression* into a Volume. The mention'd shall suffice us.

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CHAP. XXI.

4. *Aristotle's Philosophy inept for new discoveries; it hath been the Author of no one invention: It's founded on vulgarities, and therefore makes nothing known beyond them. The knowledge of Natures outside confers not to practical improvements. Better hopes from the New Philosophy. The directing all this to the design of the Discourse. A Caution, viz. that nothing is here intended in favour of novelty in Divinity; the reason why we may embrace what is new in Philosophy, while we reject them in Theologie.*

4. **T**He *Aristotelian Philosophy* is inept for New discoveries; and therefore of no accommodation to the use of life. That all Arts, and Professions are capable of mature improvements; cannot be doubted by those, who know the least of any. And that there is an *America* of secrets, and unknown *Peru* of Nature,



Nature, whoſe diſcovery would richly advance them, is more then conjecture. Now while we either ſayl by the *Land* of groſs and vulgar Doctrines, or direct our Enquiries by the *Cynofure* of meer abſtract notions; we are not likely to reach the Treasures on the other ſide the *Atlantick*: The directing of the World the way to which, is the noble end of true *Philology*. That the *Aristotelian* *Physiology* cannot boaſt it ſelf the proper Author of any one Invention; is prægnant evidence of its infecundous deficiency: And 'twould puzzle the Schools to point at any conſiderable diſcovery, made by the direct, ſole manuſduction of *Peripatetick* Principles. Moſt of our Rarities have been found out by *caſual emergency*; and have been the works of Time, and Chance, rather then of *Philology*. What *Aristotle* hath of Experimental Knowledge in his Books of *Animals*, or elſewhere; is not much tranſcending vulgar obſervation: And yet what he hath of this, was never learnt from his *Hypotheſes*; but forcibly fetch'd in to ſuffrage to them. And 'tis the obſervation of the Noble *St. Alban*; that that *Philology* is built on a few Vulgar experiments: and if upon further enquiry, any were found to reſragate, they were to be diſcharg'd by a *diſtinction*. Now what is founded on, and made up but of *Vulgarieties*, cannot make known any thing beyond them. For Nature is ſet a going by the moſt ſubtil and hidden Instruments; which it may be have nothing obvious which reſembles them. Hence judging by viſible appearances, we are diſcouraged by ſuppoſed *Impoſſibilities* which

which to *Nature* are none, but within her Sphear of Action. And therefore what shews only the outside, and sensible structure of *Nature*; is not likely to help us in finding out the *Magnalia*. 'Twere next to impossible for one, who never saw the inward wheels and motions, to make a watch upon the bare view of the *Circle* of *hours*, and *Index*: And 'tis as difficult to trace natural operations to any practical advantage, by the sight of the *Cortex* of sensible Appearances. He were a poor *Physitian*, that had no more *Anatomy*, then were to be gather'd from the *Physnomy*. Yea, the most common *Phanomena* can be neither known, nor improved, without insight into the more *hidden* frame. For *Nature* works by an *Invisible Hand* in all things: And till *Peripateticism* can shew us further, then those gross solutions of *Qualities* and *Elements*; 'twill never make us Benefactors to the World, nor considerable Discoverers. But its experienc'd sterility through so many hundred years, drives hope to desperation.

We expect greater things from *Neoterick* endeavours. The *Cartesian Philosophy* in this regard hath shewn the World the way to be happy. And me thinks this Age seems resolved to bequeath *posterity* somewhat to remember it: The glorious Undertakers, wherewith Heaven hath blest our dayes, will leave the world better provided then they found it. And whereas in former times such generous free-spirited Worthies were as the Rare newly observed *Stars*, a single one the wonder of



an Age: In ours they are like the lights of the greater size that twinkle in the *Starry Firmament*: And this last Century can glory in numerous *constellations*. Should those *Heroes* go on, as they have happily begun, they'll fill the world with *wonders*. And I doubt not but posterity will find many things, that are now but *Rumors*, verified into *practical Realities*. It may be some Ages hence, a voyage to the *Southern* unknown *Traçts*, yea possibly the *Moon*, will not be more strange then one to *America*. To them, that come after us, it may be as ordinary to buy a pair of wings to fly into remotest *Regions*; as now a pair of *Boots* to ride a *Journey*. And to conferr at the distance of the *Indies* by *Sympathetick* conveyances, may be as usual to future times, as to us in a *litterary* correspondence. The *restauration* of gray hairs to *Juvenility*, and renewing the exhausted marrow, may at length be effected without a *miracle*: And the turning of the now comparative *desert* world into a *Paradise*, may not improbably be expected from late *Agriculture*.

Now those, that judge by the narrowness of former *Principles* and *Successes*, will smile at these *Paradoxical expectations*: But questionless those great *Inventions*, that have in these later Ages altered the face of all things; in their naked propofals, and meer suppositions, were to former times as *ridiculous*. To have talk'd of a *new Earth* to have been discovered, had been a *Romance* to *Antiquity*: And to sayl without sight of *Stars* or *shoars* by the guidance of a *Mineral*, a *story* more absurd then the

the flight of *Dædalus*. That men should speak after their *tongues* were *ashes*, or communicate with each other in differing *Hemisphears*, before the Invention of *Letters*; could not but have been thought a *fiction*. *Antiquity* would not have believed the almost incredible force of our *Canons*; and would as coldly have entertain'd the wonders of the Telescope. In these we all condemn *antique incredulity*; and 'tis likely *Posterity* will have as much cause to pity *ours*. But yet notwithstanding this straightness of shallow observers, there are a set of enlarged souls that are more *judiciously credulous*: and those, who are acquainted with the fecundity of *Cartesian Principles*, and the diligent and ingenuous endeavours of so many true *Philosophers*; will despair of nothing.

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## CH A P. XXII.

(5.) *The Aristotelian Philosophy inconsistent with Divinity; and (6.) with it self. The Conclusion of the Reflexions.*

**B**Ut again (5.) the *Aristotelian Philosophy* is in some things *impious*, and *inconsistent with Divinity*. That the *Resurrection* is impossible: That *God* understands not all things: That the *world* was from *Eternity*: That there's no *substantial form*, but moves some *Orb*: That the first Mover moves by an *Eternal, Immuta- ble Neceſſity*: That, if the world and motion were not from *Eternity*, then *God* was *Idle*: were all the *Assertions of Aristotle*, and such as *Theology* pronounceth impieties. Which yet we need not ſtrange at from one, of whom a *Father* ſaith, *Nec Deum coluit nec curavit*: Eſpecially, if it be as *Philoponus* affirms, that he *philosophiz'd* by command from the *Oracle*. But beſides thoſe I have mention'd, I might preſent to view a larger Catalogue of *Aristotle's* *Impious opinions*; of which take a few:

He makes one *God* the *First Mover*, but 56 others, movers of the *Orbs*. He calls *God* an *Animal*: and affirms, that

that He *knows* not *particulars*. He denies that *God* made any thing, or can do any thing but *move* the *Heavens*. He affirms, that 'tis not *God* but *Nature*, *Chance*, and *Fortune* that rule the *World*. That he is tyed to the *fiſt Orb*; and *preſerves* not the *World*, but only *moves* the *Heavens*; and yet elſewhere, that the *World* and *Heavens* have infinite power to move themſelves. He affirms, the *Soul* cannot be *ſeparated* from the *Body*, becauſe 'tis it's *Form*. That *Prayers* are to no purpoſe, becauſe *God* underſtands not *particulars*. That *God* hears no *Prayers*, nor loves any man. That the *Soul* *perisheth* with the *body*: And that there is neither *ſtate*, nor *place* of *Happineſs* after this life is ended. All which *Dogmata*, how contrary they are to the Fundamental Principles of *Reason* and *Religion*, is eaſily determin'd: and perhaps, never did any worſe drop from the Pens of the moſt vile contemnners of the Deity. So that the Great and moſt Learned *Origen*, was not unjuſt in præferring *Epicurus* before the adored *Stagyrite*. And poſſibly there have been few men in the world have deſerv'd leſs of *Religion*, and thoſe that profeſs it. How it is come about then, that the Aſſertour of ſuch *impieties*, ſhould be ſuch an Oracle among *Divines* and *Chriſtians*; is I confeſs to me, matter of ſome aſtoniſhment. And how *Epicurus* became ſo infamous, when *Ariſtotle* who ſpake as ill, and did worſe, hath been ſo ſacred, may well be wondred at.



A Gain (6.) The Peripatetick Philosophy is repugnant to it Self; as also it was contrary to the more *anti-ent Wisdom*. And therefore the learned *Patritius* saith of *Aristotle*, *Ob eam rem multos è patribus habuit oppugnatores, celebratorem neminem*. And within the same period of sense affirms, *Ipse sibi ipsi non constat; immo sapißimè, immo semper secum pugnat*. Of the *Aristotelian contradictions*, *Gassendus* hath presented us with a Catalogue: We'll instance in a few of them. In one place he saith, The *Planets scintillation* is not seen, because of their *propinquity*; but that of the *rising and setting Sun* is, because of its *distance*: and yet in another place he makes the *Sun* nearer us, then they are. He saith, that the *Elements* are not *Eternal*, and seeks to prove it; and yet he makes the *world so*, and the *Elements* its parts. In his *Meteors* he saith, no Dew is produced in the *Wind*; and yet afterwards admits it under the *South*, and none under the *North*. In one place he defines a vapour *humid and cold*; and in another *humid and hot*. He saith, the *faculty of speaking* is a *sense*; and yet before he allow'd but *five*. In one place, that *Nature* doth all things *best*; and in another, that it makes more *evil* then *good*. And somewhere he contradicts himself within a *line*; saying, that an *Immoveable Mover* hath no principle of *Motion*. 'Twould be tedious to mention more; and the quality of a *digression* will not allow it.

Thus we have, as briefly as the subject would bear, animadverted on the so much admired *Philosophy of Aristotle*.

*Stotle.* The nobler Spirits of the Age, are disengaged from those detected vanities : And the now Adorers of that *Philosophy* are few, but such as know no other : Or if any of them look beyond the leaves of their *Master*, yet they try other Principles by a Jury of his, and scan *Des-Cartes* by *Genus* and *Species*. From the former sort I may hope, they'll pardon this attempt; since nothing but the Authors weakness hindred his obliging them. And for the latter, I value not their censure.

WE may conclude upon the whole then, that the stamp of *Authority* can make *Leather* as current as *Gold*; and that there's nothing so contemptible, but *Antiquity* can render it august, and excellent. But, because the Fooleries of some affected Novelists have discredited new discoveries, and render'd the very mention suspected of *Vanity* at least; and in points Divine, of *Heresie* : It will be necessary to add, that I intend not the former discourse, in favour of any new-broach'd conceit in *Divinity* : For I own no Opinion there, which cannot plead the prescription of above *sixteen hundred*. There's nothing I have more sadly resented, then the crasie whimsies with which our Age abounds, and therefore am not likely to Patron them. In *Theology*, I put as great a difference between our *New Lights*, and *Antient Truths*, as between the *Sun*, and an unconcocted evanid *Meteor*. Though I confess, that in *Philosophy* I'm a *Seeker*; yet cannot believe, that a *Sceptick* in *Philosophy* must be one in *Divinity*. *Gospel-light*



began in its *Zenith*; and, as some say the *Sun*, was created in its *Meridian* strength and lustre. But the beginnings of *Philosophy* were in a *Crepusculous obscurity*; and It's yet scarce past the *Dawn*. *Divine Truths* were most pure in their source; and *Time* could not perfect what *Eternity* began: our *Divinity*, like the Grand-father of *Humanity*, was born in the *fulness of time*, and in the strength of its manly vigour: But *Philosophy* and Arts commenced *Em-bryo's*, and are by Times gradual accomplishments. And therefore, what I cannot find in the leaves of former Inquisitours: I seek in the Modern attempts of nearer Authors. I cannot receive *Aristotle's* ΠΙΣΤΟΤΑΤΟΙ ΠΑΛΑΙΟΙ, in so extensive an interpretation, as some would enlarge it to: And that discouraging Maxime, *Nil dictum quod non dictum prius*, hath little room in my estimation. Nor can I tye up my belief to the *Letter of Solomon*: Except *Copernicus* be in the right, there hath been something *New* under the *Sun*; I'm sure, later times have seen *Novelties* in the *Heavens* above it. I do not think, that all Science is *Tautology*: The last Ages have shewn us, what *Antiquity* never saw; no, not in a *Dream*.

## CHAP. XXIII.

*It's queried whether there be any Science in the sense of the Dogmatists: (1.) We cannot know any thing to be the cause of another, but from its attending it; and this way is not infallible; declared by instances, especially from the Philosophy of Des-Cartes. All things are mixt; and 'tis difficult to assign each Cause its distinct Effects. (2.) There's no demonstration but where the contrary is impossible. And we can scarce conclude so of any thing.*

**C**onfidence of Science is one great reason, we miss it: For on this account presuming we have it every where, we seek it not where it is; and therefore fall short of the object of our Enquiry. Now to give further check to Dogmatical pretensions, and to discover the vanity of assuming Ignorance; we'll make a short enquiry, whether there be any such thing as Science in



the ſenſe of its Aſſertours. In their notion then, *It is the knowledge of things in their true, immediate, neceſſary cauſes*: Upon which I'll advance the following Obſervations.

1. All Knowledge of Cauſes is *deductive*: for we know none by ſimple intuition; but through the mediation of their effects. So that we cannot conclude, any thing to be the cauſe of another; but from its continual accompanying it: for the *cauſality* it ſelf is *inſenſible*. But now to argue from a concomitancy to a cauſality, is not infallibly concluſive: Yea in this way lies notorious deluſion. For ſuppoſe, for inſtance, we had never ſeen more Sun, then in a cloudy day; and that the leſſer lights had ne'er appeared: Let us ſuppoſe the day had alway broke with a wind, and had proportionably varied, as *that* did: Had not he been a notorious *Sceptick*, that ſhould queſtion the cauſality? But we need not be beholding to ſo remote a ſuppoſition: The French *Philophy* furniſhes us with a better inſtance. For, according to the Principles of the illuſtrious *Des-Cartes*, there would be *light*, though the Sun and Stars gave *none*; and a great part of what we now enjoy, is independent on their beams. Now if this ſeemingly prodigious *Paradox*, can be reconcil'd to the leaſt probability of conjecture, or may it be made but a tolerable ſuppoſal; I preſume, it may then win thoſe that are of moſt difficult belief, readily to yield, that cauſes in our account the moſt palpable, may poſſibly be but *uninfluential attendants*; ſince that there is not an inſtance  
can

can be given, wherein we opinion a more certain *efficiency*. So then, according to the tenour of that concinnous *Hypothesis*, light being caused by the *Conamen* of the Matter of the *Vortex*, to recede from the Centre of its Motion: it is an easie inference, that were there none of that fluid *Æther*, which makes the body of the Sun in the Centre of our world, or should it cease from action; yet the *conatus* of the circling matter would not be considerably less, but according to the indispensable Laws of Motion, must press the Organs of Sense as now; though it may be, not with so smart an impulse. Thus we see, how there might be *Light* before the *Luminaries*; and *Evening* and *Morning* before there was a *Sun*. So then we cannot infallibly assure our selves of the truth of the *causes*, that most obviously occur; and therefore the foundation of *scientific* procedure, is too weak for so magnificent a superstructure.

Besides, That the World's a mass of *heterogeneous* subsistencies, and every part thereof a coalition of distinguishable varieties; we need not go far for evidence: And that all things are *mixed*, and Causes blended by mutual involutions; I presume, to the Intelligent will be no difficult concession. Now to profound to the bottom of these *diversities*, to assign each cause its distinct effects, and to limit them by their *just* and *true* proportions; are necessary requisites of *Science*: and he that hath compassed them, may boast he hath out-done *humanity*. But for us to talk of *Knowledge*, from those few indistinct representations, which



which are made to our groſſer faculties, is a *flatulent vanity*.

2. We hold no *demonſtration* in the notion of the *Dogmatist*, but where the contrary is *impoſſible*: For *neceſſary is that, which cannot be otherwiſe*. Now, whether the acquisitions of any on this ſide perfection, can make good the pretenſions to ſo high *ſtrain'd an infallibility*, will be worth a reflexion. And methinks, did we but compare the miſerable *ſcantneſs* of our *capacities*, with the vaſt *profoundity* of *things*; both truth and modeſty would teach us a more wary and becoming language. Can nothing be otherwiſe, which we conceive *impoſſible* to be ſo? Is our knowledge, ſo adequately commensurate with the nature of things, as to juſtify ſuch an affirmation, that that cannot be, which we comprehend not? Our demonſtrations are levyed upon Principles of our *own*, not *universal Nature*: And, as my Lord *Bacon* notes, we judge from the *Analogy* of our *ſelves*, not the *Univerſe*. Now are not many things *certain* by one man's *Principles*, which are *impoſſible* to the apprehenſions of another? Some things our Juvenile reaſons tenaciouſly adhere to; which yet our maturer Judgements diſallow of: And that to meer ſenſible diſcerners is *impoſſible*, which to the enlarged principles of more advanced *Intellects* is an eaſie variety: Yea, that's abſurd in one *Philophy*, which is a worthy Truth in another; and that is a demonſtration to *Ariſtotle*, which is none to *Des-Cartes*. That every fixt *ſtar* is a *Sun*; and that they are as diſtant from each other, as we from ſome  
of

of them : That the *Sun*, which lights us, is in the *Centre* of our *World*, and our *Earth* a *Planet* that wheels about it : That this *Globe* is a *Star*, only cruſted over with the groſſer *Element*, and that its *Centre* is of the ſame nature with the *Sun* : That it may recover its light again, and ſhine amids the other *Luminaries* : That our *Sun* may be ſwallow'd up of another, and become a *Planet* : All theſe, if we judge by common Principles, or the Rules of *Vulgar Philoſophy*, are prodigious *Impoſſibilities*, and their contradictory, as good as *demonſtrable* : But yet to a reaſon inform'd by *Carteſianiſm*, theſe have their probability. Thus, it may be, the groſſeſt abſurdities to the *Philophies* of *Europe*, may be juſtifiable aſſertions to that of *China* : And tis not unlikely, but what's impoſſible to all *Humanity*, may be poſſible in the *Metaphyſicks*, and *Phyſiologie* of *Angels*. For the beſt Principles, excepting *Divine*, and *Mathematical*, are but *Hypotheſes* ; within the Circle of which, we may indeed conclude many things, with ſecurity from Error : But yet the greateſt certainty, advanc'd from ſuppoſal, is ſtill but *Hypothetical*. So that we may affirm, that things are thus and thus, according to the *Principles* we have eſpouſed : But we ſtrangely forget our ſelves, when we plead a neceſſity of their being ſo in *Nature*, and an *Impoſſibility* of their being otherwiſe.

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CHAP.



## CHAP. XXIV.

*Three Instances of reputed Impossibilities, which likely are not so, as (1.) of the power of Imagination. (2.) Secret Conveyance. (3.) Sympathetick Cures.*

**N**OW to shew how rashly we use to conclude things impossible; I'll instance in some reputed *Impossibilities*, which are only strange and difficult performances. And the Instances are Three: (1.) The power of one man's imagination upon anothers. (1.) *Momentous* conveyance at almost any distance. (3.) *Sympathetick Cures*.

(1.) That the *Phancy* of one Man should bind the Thoughts of another, and determine them to their particular objects, will be thought *impossible*: which yet, if we look deeply into the matter, wants not it's probability. The judicious Naturalist my Lord Bacon, speaks not unfavourably of this way of *secret influence*: And that the spirit of one man hath sometimes a power over that of another, I think is well attested by experience. For some presences daunt and discourage us, when others raise us to a brisk assurance. And I believe there  
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are few but find that ſome Companies benumb and cramp them, ſo that in them they can neither ſpeak nor do any thing that is handſom: whereas among more congruous and ſuitable tempers then find themſelves very lucky and fortunate both in Speech and Action. Which things ſeem to me pretty conſiderable evidence of immaterial intercourſes between our Spirits. And that this kind of ſecret influence may be advanc't to ſo ſtrange an operation in the Imagination of one upon another, as to fix and determine it. Methinks the wonderful *ſignatures* of the *Fœtus* cauſed by the Imagination of the Mother, is no contemptible Item. The *ſympathies* of laughing and gaping together, are reſolv'd into this Principle: and I ſee not why the *phancy* of one man may not determine the cogitation of another rightly qualified, as eaſily as his *bodily motion*. Nor doth this influence ſeem more unreaſonable, then that of one *ſtring* of a Lute upon another, when a *ſtroak* on it cauſeth a proportionable motion in the *ſympathizing* conſort, which is diſtant from it and not ſenſibly touched. And if there be truth in this notion; 'twill yield us a good account how *Angels* inject thoughts into our minds, and know our cogitations: and here we may ſee the ſource of ſome kinds of *fascination*.

Now, though in our inquiry after the Reason of this operation, we can receive no aſſiſtance from the common *Philophy*; yet the *Platonical Hypotheſis* of a *Mundane Soul* will handſomely relieve us. Or if any would



rather have a *Mechanical* account; I think it may probably be made out some such way as follows. *Imagination* is inward Sense; To *Sense* is required a motion of certain *Filaments* of the Brain; and consequently in *Imagination* there's the like: they only differing in this, that the motion of the one proceeds immediately from external objects; but that of the other hath its immediate rise within our selves. Now then, when any part of the Brain is strongly agitated; that, which is next and most capable to receive the *motive* Impress, must in like manner be moved. And we cannot conceive any thing more capable of motion, then the *fluid* matter, that's interspers'd among all bodies, and contiguous to them. So then, the agitated pars of the Brain begetting a *motion* in the proxime *Æther*; it is propagated through the liquid *medium*; as we see the motion is which is caus'd by a stone thrown into the water. And when the thus moved *matter* meets with any thing like that, from which it received its primary *impress*; it will in like manner move it; as it is in *Musical strings* tuned *Unisons*. And thus the motion being convey'd, from the Brain of one man to the *Phancy* of another; it is there receiv'd from the instrument of conveyance, the *subtil* matter; and the same kind of *strings* being moved, and much what after the same manner as in the first *Imaginant*; the *Soul* is awaken'd to the same apprehensions, as were they that caus'd them. I pretend not to any exactness or infallibility in this account, fore-seeing many scruples that

that muſt be removed to make it perfect: 'Tis only an hint of the *poſſibility* of mechanically ſolving the *Phænomenon*; though very likely it may require many other circumſtances compleatly to make it out. But 'tis not my buſineſs here to follow it: I leave it therefore to receive accompliſhment from maturer Inventions.

But ( 2. ) to advance another inſtance. That Men ſhould confer at very diſtant removes by an *extemporary* intercourſe, is another reputed *impoſſibility*; but yet there are ſome hints in Natural operations, that give us probability that it is feaſible, and may be compaſt without unwarrantable correſpondence with the people of the Air. That a couple of *Needles* equally touched by the ſame *magnet*, being ſet in two *Dyals* exactly proportion'd to each other, and circumscribed by the Letters of the *Alphabet*, may effect this *Magnale*, hath conſiderable authorities to avouch it. The manner of it is thus reſented. Let the friends that would communicate, take each a *Dyal*: and having appointed a time for their *Sympathetick* conference, let one move his impregnate *Needle* to any letter in the *Alphabet*, and its affected fellow will preſiſely reſpect the ſame. So that would I know what my friend would acquaint me with; 'tis but obſerving the letters that are pointed at by my *Needle*, and in their order tranſcribing them from their *ſympathizing Index*, as its motion direct's: and I may be aſſured that my friend deſcribed the ſame with



his : and that the words on my paper, are of his indicating. Now though there will be ſome ill contrivance in a circumſtance of this invention, in that the thus *impregnate Needles* will not move to, but avert from each other (as ingenious Dr. Browne in his *Pſeudodoxia Epidemica* hath obſerved : ) yet this cannot prejudice the main deſign of this way of ſecret conveyance : Since 'tis but reading counter to the *magnetick* informer ; and noting the letter which is moſt diſtant in the *Abecedarian circle* from that which the Needle turns to, and the caſe is not alter'd. Now though this pretty contrivance poſſibly may not yet answer the expectation of inquisitive *experiment* ; yet 'tis no deſpicable item, that by ſome other ſuch way of *magnetick efficiency*, it may hereafter with ſucceſs be attempted, when *Magical Hiſtory* ſhall be enlarged by riper inſpections : and 'tis not unlikely, but that preſent diſcoveries might be improved to the performance.

Befides this there is another way of ſecret conveyance that's whiſper'd about the World, the *truth* of which I vouch not, but the *poſſibility* : it is conference at diſtance by ſympathized handes. For ſay the relations of this ſtrange ſecret : The hands of two friends being allyed by the transferring of *Fleſh* from one into another, and the place of the Letters mutually agreed on ; the leaſt prick in the hand of one, the other will be ſenſible of, and that in the ſame part of his own. And thus the diſtant friend, by a new kind of  
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*Chiromancy*, may read in his own hand what his correspondent had set down in his. For instance, would I in *London* acquaint my intimate in *Paris*, that *I am well*: I would then prick that part where I had appointed the letter [ *I*: ] and doing so in another place to signify that word was done, proceed to [ *A*, ] thence to [ *M* ] and so on, till I had finish'd what I intended to make known.

Now if these seemingly prodigious Phancies of secret conveyances prove to be but *possible*, they will be warrantable presumption of the verity of the former instance: since tis as easily conceivable, that there should be communications between the phancies of men, as either the *impregnate needles*, or *sympathized hands*. And there is an instance still behind, which is more credible than either, and gives probability to them all.

( 3. ) Then there is a *Magnetick* way of curing wounds by anointing the *weapon*, and that the wound is affected in like manner as is the *extravenate blood* by the *Sympathetick medicine*, as to matter of fact is with circumstances of good evidence asserted by the Noble Sir *K. Digby* in his ingenious discourse on the subject. The reason of this *magnale* he attempts by *Mechanism*, and endeavours to make it out by *atomical aporrheas*, which passing from the *cruentate* cloth or weapon to the wound, and being incorporated with the particles of the *salve* carry them in their embraces to the affected part: where the medicinal



*medicinal atomes* entering together with the *effluvia* of the blood, do by their subtle insinuation better effect the cure, then can be done by any grosser Application. The particular way of their conveyance, and their regular direction is handsomely explicated by that learned Knight, and recommended to the Ingenious by most witty and becoming illustrations. It is out of my way here to enquire whether the *Anima Mundi* be not a better account, then any *Mechanical* Solutions. The former is more desperate; the latter perhaps hath more of ingenuity, then good ground of satisfaction. It is enough for me that *de facto* there is such an intercourse between the *Magnetick unguent* and the *vulnerated* body, and I need not be solicitous of the Cause. These *Theories* I presume will not be importunate to the ingenious: and therefore I have taken the liberty (which the quality of a Essay will well enough allow of) to touch upon them, though seemingly collateral to my scope. And yet I think, they are but seemingly so, since they do pertinently illustrate my design, *viz.* That what seems *impossible* to us, may not be so in *Nature*; and therefore the *Dogmatist* wants this to compleat his demonstration, that 'tis *impossible* to be otherwise.

Now I intend not any thing here to invalidate the certainty of truths either *Mathematical* or *Divine*. These are superstructed on principles that cannot fail us, except our faculties do constantly abuse us. Our *religious foundations* are fastened at the pillars of the *intellectual* world,  
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and the grand *Articles* of our Belief as demonſtrable as *Geometry*. Nor will ever either the ſubtile attempts of the reſolved *Atheiſt*, or the paſſionate Hurricanoes of the wild *Enthuſiaſt*, any more be able to prevail againſt the *reaſon* our *Faith* is built on, than the bluſtring *winds* to blow out the *Sun*. And for *Mathematical Sciences*, he that doubts their certainty, hath need of a doſe of *Hellebore*. Nor yet can the *Dogmatist* make much of theſe concessions in favour of his pretended *Science*; for our diſcourſe comes not within the circle of the former: and for the later, the knowledge we have of the *Mathematicks*, hath no reaſon to elate us; ſince by them we know but *numbers*, and *figures*, creatures of our own, and are yet ignorant of our *Maker's*.

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## CHAP. XXV.

(3.) *We cannot know any thing in Nature without knowing the first springs of Natural Motions; and these we are ignorant of.* (4.) *Causes are so connected that we cannot know any without knowing all; declared by Instances.*

**B**ut (3.) we cannot know any thing of Nature but by an *Analysis* of it to its *true initial causes*: and till we know the first springs of natural motions, we are still but Ignorants. These are the *Alphabet* of Science, and Nature cannot be *read* without them. Now who dares pretend to have seen the *prime motive causes*, or to have had a view of Nature, while she lay in her *simple Originals*? we know nothing but *effects*, and those but by our *Senses*. Nor can we judge of their *Causes*, but by proportion to palpable causalities, conceiving them like those within the sensible *Horizon*. Now 't is no doubt with the considerate, but that the *rudiments* of Nature are very unlike the grosser *appearances*. Thus in things obvious, there's but little resemblance between

tween the *Mucous ſperm*, and the compleated *Animal*. The *Egge* is not like the *oviparous* production: nor the corrupted *muck* like the *creature* that creeps from it. There's but little ſimilitude betwixt a *terreous humidity*, and *plan-tal* germinations; nor do *vegetable* derivations ordinarily reſemble their *ſimple ſeminalities*. So then, ſince there's ſo much diſſimilitude between *Cauſe* and *Effect* in the more palpable *Phænomena*, we can expect no leſs between them, and their *inviſible* efficient. Now had our Sences never preſented us with thoſe obvious *ſeminal* principles of apparent generations, we ſhould never have ſuſpected that a *plant* or *animal* could have proceeded from ſuch unlikely *materials*: much leſs, can we conceive or determine the uncompounded *initials* of natural productions, in the total ſilence of our Sences. And though the Grand Secretary of Nature, the miraculous *Deſ-Cartes* have here infinitely out-done all the Philoſophers went before him, in giving a particular and *Ana-lytical* account of the *Univerſal Fabrick*: yet he intends his Principles but for *Hypotheſes*, and never pretends that things are really or neceſſarily, as he hath ſuppoſed them: but that they may be admitted pertinently to ſolve the *Phænomena*, and are convenient ſuppoſals for the *uſe of life*. Nor can any further account be expected from humanity, but how things poſſibly may have been made conſonantly to ſenſible nature: but infallibly to determine how they truly were effected, is proper to him only that ſaw them in the *Chaos*, and faſhion'd them out



of that confused *mass*. For to say, the principles of Nature must needs be such as our Philosophy makes them, is to set bounds to *Omnipotence*, and to confine *infinite power* and *wisdom* to our shallow models.

(4.) According to the notion of the *Dogmatist*, we know nothing, except we knew all things; and he that pretends to Science affects an *Omniscience*. For all things being linkt together by an uninterrupted chain of *Causes*; and every single motion owning a dependence on such a *Syndrome* of præ-required *motors*: we can have no true knowledge of any, except we comprehend all, and could distinctly pry into the whole method of *Causal Concatenations*. Thus we cannot know the cause of any one motion in a watch, unless we were acquainted with all its motive dependences, and had a distinctive comprehension of the whole *Mechanical* frame. And would we know but the most contemptible plant that grows, almost all things that have a being, must contribute to our knowledge: for, that to the perfect Science of any thing it's necessary to know all its causes; is both reasonable in its self, and the sense of the *Dogmatist*. So that, to the knowledge of the poorest simple, we must first know its efficient, the manner, and method of its efformation, and the nature of the *Plastick*. To the comprehending of which, we must have a full prospect into the whole *Archidoxis* of Nature's secrets, and the immense profundities of occult Philosophy: in which we know nothing till we compleatly ken all *Magnetick*, and *Sympathetick* ener-

energies, and their moſt hidden cauſes. And (2.) if we contemplate a *vegetable* in its *material* principle, and look on it as made of *Earth*; we muſt have the true Theory of the nature of that Element, or we miſerably fail of our *Scientific* aſpirings, and while we can only ſay, 'tis *cold* and *dry*, we are pitiful *knowers*. But now, to profound into the *Phyſicks* of this heterogeneous maſs, to diſcern the principles of its conſtitution, and to diſcover the reaſon of its diverſities, are abſolute requiſites of the *Science* we aim at. Nor can we tolerably pretend to have thoſe without the knowledge of *Minerals*, the *cauſes* and *manner* of their Concretions, and among the reſt, the *Magnet*, with its amazing properties. This directs us to the *pole*, and thence our diſquiſition is led to the whole *ſyſteme* of the *Heavens*: to the knowledge of which, we muſt know their *motions*, and the *cauſes*, and *manner* of their *rotations*, as alſo the reaſons of all the *Planetary Phenomena*, and of the *Comets*, their *nature*, and the *cauſes* of all their *irregular appearings*. To theſe, the knowledge of the intricate doctrine of *motion*, the *powers*, *proportions*, and *laws* thereof, is requiſite. And thus we are engaged in the objects of *Geometry* and *Arithmetick*; yea the whole *Mathematicks*, muſt be contributory, and to them all *Nature* payes a ſubſidy. Beſides, *plants* are partly material'd of *water*, with which they are furniſht either from *ſubterranean Fountains*, or the *Clouds*. Now to have the true Theory of the former, we muſt trace the nature of the *Sea*, its origen; and hereto its remarkable



*motions of flux and reflux.* This again directs us to the *Moon*, and the rest of the *Celestial phases*. The moisture that comes from the *Clouds* is drawn up in *vapours*: To the Scientificall discernment of which, we must know the *nature* and *manuër* of that action, their *suspense* in the *middle region*, the *qualities* of that *place*, and the *causes* and *manner* of their precipitating thence again: and so the reason of the *Spherical* figure of the *drops*; the *causes* of *Winds*, *Hail*, *Snow*, *Thunder*, *Lightning*, with all other *igneous* appearances, with the whole *Physiology* of *Meteors* must be enquired into. And again (3.) in our disquisition into the *formal Causes*, the knowledge of the *nature* of *colours*, is necessary to compleat the Science. To be inform'd of this, we must know what *light* is; and *light* being effected by a motion on the *Organs* of *sense*, 'twill be a necessary requisite, to understand the *nature* of our *sensitive* faculties, and to them the *essence* of the *soul*, and other *spiritual* subsistences. The *manner* how it is *materially* united, and how it is aware of *corporeal motion*. The *seat* of *sense*, and the *place* where 'tis *principally* affected: which cannot be known but by the *Anatomy* of our parts, and the knowledge of their *Mechanical* structure. And if further (4.) we contemplate the *end* of the *effect* we instanc't in, its *principal* *final Cause*, being the *glory* of its *Maker*, leads us into *Divinity*; and for its *subordinate*, as 'tis design'd for *alimental* sustenance to living creatures, and *medicinal* uses to man, we are conducted into *Zoography*, and the

the whole body of *Physick*. Thus then, to the *knowledge* of the most contemptible *effect* in nature, 'tis necessary to know the whole *Syntax* of Causes, and their particular *circumstances*, and *modes* of action. Nay, we *know nothing*, till we *know our selves*, which are the summary of all the world without us, and the *Index* of the Creation. Nor can we know our selves without the *Physiology* of corporeal Nature, and the *Metaphysicks* of Souls and Angels. So then, every Science borrows from all the rest; and we cannot attain any single one, without the *Encyclopædy*. I have been the more diffuse and particular upon this head, because it affords a catalogue of the Instances of our *Ignorance*; and therefore though it may seem too largely spoken to in relation to the particular I am treating of, yet 'tis not improper in a more general reference to the subject.

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## CHAP. XXVI.

*All our Science comes in at our ſenſes. Their infallibility inquired into. The Authors deſign in this laſt particular.*

(5.) **T**He knowledge we have comes from our ſenſes, and the Dogmatist can go on higher for the original of his certainty. Now let the Scioliſt tell me, why things muſt needs be ſo, as his individual ſenſes repreſent them. Is he ſure, that objects are not otherwiſe ſenſed by others, then they are by him? and why muſt his ſenſe be the infallible Criterion? It may be, what is white to us, is black to Negroes, and our Angels to them are Fiends. Diversity of conſtitution, or other circumſtances varies the ſenſation, and to them of Java Pepper is cold. And though we agree in a common name, yet it may be, I have the ſame repreſentation from yellow, that another hath from green. Thus two look upon an Alabaſter Statue; he call's it white, and I aſſent to the appellation: but how can I diſcover, that his inward ſenſe on't is the ſame that mine is? It may be Alabaſter is repreſented to him, as Jet is to me, and yet it is white to us both. We accord in the name: but  
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it's beyond our knowledge, whether we do ſo in the *conception* answering it. Yea, the contrary is not without its probability. For though the *Images*, *Motions*, or whatever elſe is the cauſe of *ſenſe*, may be alike as from the object; yet may the representations be varied according to the nature and quality of the Recipient. That's one thing to us looking through a *tube*, which is another to our naked eyes. The ſame things ſeem otherwiſe through a *green* glaſs, then they do through a *red*. Thus objects have a different appearance; when the *eye* is violently any way *diſtorted*, from that they have, when our *Organs* are in their proper *ſite* and *figure*, and ſome extraordinary alterations in the *Brain* duplicate that which is but a ſingle object to our undiſtemper'd *Sentient*. Thus, that's of one *colour* to us ſtanding in *one place*, which hath a contrary aſpect in *another*: as in thoſe verſatile representations in the neck of a *Dove*, and folds of *Scarlet*. And as great diverſity might have been exemplified in the other *ſenſes*, but for brevity I omit them. Now then, ſince ſo many various circumſtances concur to every *individual* conſtitution, and every mans *ſenſes*, differing as much from others in its *figure*, *colour*, *ſite*, and infinite other *particularities* in the *Organization*, as any one mans can from it ſelf, through divers *accidental* variations: it cannot well be ſuppos'd otherwiſe, but that the



*conceptions* convey'd by them muſt be as *diverſe*. Thus, one mans eyes are more *protuberant*, and ſwelling out; anothers more *ſunk* and *depreſſed*. One mans *bright*, and ſparkling, and as it were ſwimming in a *ſubtile*, lucid moiſture; anothers more *dull* and heavy, and deſtitute of that *ſpirituouſ* humidity. The *colour* of mens eyes is various, nor is there leſs diverſity in their bigneſs. And if we look further into the more *inward* conſtitution, there's more variety in the internal *configurations*, then in the *viſible* outſide. For let us conſider the different qualities of the *Optick* nerves, *humours*, *tumours* and ſpirits; the divers *figurings* of the brain; the *ſtrings*, or *filaments* thereof; their difference in tenuity and aptneſs for motion: and as many other circumſtances, as there are individuals in *humane nature*; all theſe are diverſified according to the difference of each *Craſis*, and are as unlike, as our *faces*. From theſe diverſities in all likelihood will ariſe as much difference in the manner of the reception of the *Images*, and conſequently as various *ſenſations*. So then, how objects are repreſented to my *ſelf*, I cannot be ignorant, being conſcious to mine own *cogitations*; but in what manner they are received, and what impreſſes they make upon the ſo differing *organs* of another, he only *knows*, that *feels* them.

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There is an obvious, an easie objection, which I have sufficiently caveated against; and with the considerate it will signifie no more then the inadvertency of the Objectors. 'Twill be thought by slight discerners a ridiculous *Paradox*, that all men should not conceive of the objects of *sense* alike; since their agreement in the *appellation* seems so strong an argument of the identity of the *sentiment*. All, for instance, say, that Snow is *white*, and that Jet is *black*, is doubted by none. But yet 'tis more then any man can determine, whether his *conceit* of what he calls *white*, be the same with anothers; or whether, the notion he hath of one colour be not the same another hath of a very *diverse* one. So then, to direct all against the *knowing Ignorant*, what he hath of sensible evidence, the very ground work of his *demonstration*, is but the knowledge of his own *resentment*: but how the same things appear to others, they only *know*, that are *conscious* to them; and how they are in *themselves*, only he that *made them*.

Thus have I in this last particular play'd with the *Dogmatist* in a personated *Scepticism*: and would not have the design of the whole *discourse* measur'd by the seeming tendency of this part on't. The *Sciolist* may here see, that what he counts of all things most absurd and irrational, hath yet considerable shew of probability to plead its cause, and it may be more



then some of his presumed *demonstrations*. 'Tis irreprehensible in *Physitians* to cure their Patient of one disease, by casting him into another, less desperate. And I hope, I shall not deserve the frown of the Ingenuous for my innocent intentions; having in this only imitated the practice of bending a *crooked* stick as much the other way, to straighten it. And if by this verge to the other extream, I can bring the *opinionative* *Confident* but half the way, viz. that discreet modest *æquipoize* of Judgment, that becomes the sons of *Adam*; I have compass'd what I aim at.

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CHAP. XXVII.

*Considerations against Dogmatizing. (1) 'Tis the effect of Ignorance. (2.) It inhabits with untamed passions, and an ungovern'd Spirit. (3.) It is the great Disturber of the World. (4.) It is ill manners, and immodesty. (5.) It holds men captive in Error. (6.) It betrayes a narrowness of Spirit.*

**I** Expect but little success of all this upon the *Dogmatist*; his opinion'd assurance is paramount to Argument, and 'tis almost as easie to reason him out of a *Feaver*, as out of this *disease* of the mind. I hope for better fruit from the more generous *Vertuosi*, to such I appeal against *Dogmatizing*, in the following considerations; that's well spent upon impartial ingenuity, which is lost upon resolved prejudice.

(1.) *Opinionative confidence* is the effect of *Ignorance*, and were the *Sciolist* perswaded so, I might spare my further reasons against it: 'tis affectation of knowledge, that makes



him confident he hath it; and his confidence is counter evidence to his pretensions to *knowledge*. He is the greateſt *ignorant*, that knows not that he is *ſo*: for 'tis a good degree of *Science*, to be ſenſible that we *want* it. He that knows moſt of himſelf, knows leaſt of his knowledge, and the exerciſed underſtanding is conſcious of its diſability. Now he that is *ſo*, will not lean too aſſuredly on that, which hath ſo frequently deceived him, nor build the *Caſtle* of his intellectual ſecurity, in the *Air of Opinions*. But for the ſhallow paſſive intellects, that were never engag'd in a through ſearch of verity, 'tis ſuch are the *confidents* that engage their irrepealable aſſents to every ſlight appearance. Thus meer ſenſible conceivers, make every thing they hold a *Sacrament*, and the ſilly vulgar are *ſure* of all things. There was no Theoreme in the *Mathematicks* more certain to *Archimedes*, then the *Earth's* immoveable *quiſcence* ſeems to the multitude: nor then did the impoſſibility of *Antipodes*, to antique ages. And if great *Philoſophers* doubt of many things, which popular dijudicants hold as certain as their *Creeds*, I ſuppoſe *Ignorance* it ſelf will not ſay, it is becauſe they are more *ignorant*. Superficial pedants will ſwear their controverſal uncertainties, while wiſer heads ſtand in *bivio*. Opinions are the *Rattles* of immature intellects, but the advanced Reaſons have out-grown them. True knowledge is modeſt and wary; 'tis ignorance that is ſo bold, and preſuming. Thus thoſe that never travail'd beyond one *Horizon*,  
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will not be perſwaded that the world hath any Countrey better then their own: while they that have had a view of other Regions, are not ſo confidently perſwaded of the precedency of that they were bred in, but ſpeak more indifferently of the *laws*, *manners*, *commodities*, and *cuſtoms* of their native ſoil: So they that never peep't beyond the common belief in which their eaſie underſtandings were at firſt indoctrinated, are ſtrongly aſſured of the Truth, and comparative excellency of their receptions, while the larger Souls, that have travelled the divers *Climates* of *Opinions*, are more cautious in their *reſolves*, and more ſparing to determine. And let the moſt confirm'd *Dogmatist* profound far into his indeared opinions, and I'll warrant him 'twill be an effectual cure of *confidence*.

(2.) *Confidence in Opinions* evermore dwells with untamed *paſſions*, and is maintained upon the depraved *obſtinacy* of an ungovern'd *ſpirit*. He's but a novice in the Art of *Autocracy*, that cannot caſtigate his *paſſions* in reference to thoſe *preſumptions*, and will come as far ſhort of *wiſdom* as *ſcience*: for the Judgement being the leading power, and director of action, if It be ſwaid by the *over-bearings* of *paſſion*, and ſtor'd with *lubricous opinions* in ſtead of clearly conceived *truths*, and be peremptorily reſolved in them, the *practice* will be as irregular, as the *conceptions* erroneous. *Opinions* hold the ſtirrup, while *vice* mount into the ſaddle.

(3.) *Dog-*



(3.) *Dogmatizing* is the great disturber both of our selves and the world without us: for while we wed an *opinion*, we resolvedly engage against every one that opposeth it. Thus every man, being in some of his *opinionative* apprehensions *singular*, must be at variance with all men. Now every opposition of our espous'd opinions furrows the sea within us, and discomposeth the minds *serenity*. And what happiness is there in a storm of passions? On this account the *Scepticks* affected an indifferent æquipondious *neutrality* as the only means to their *Ataraxia*, and freedom from *passionate* disturbances. Nor were they altogether mistaken in the way, to their design'd felicity, but came short on't, by going beyond it: for if there be a repose naturally attainable this side the Stars, there is no way we can more hopefully seek it in. We can never be at rest, while our quiet can be taken from us by every thwarting our opinions: nor is that content an happiness, which every one can rob us of. There is no *felicity*, but in a *fixed stability*. Nor can genuine *constancy* be built upon *rolling* foundations. 'Tis true staidness of mind, to look with an equal regard on all things; and this unmoved *apathy* in opinionative uncertainties, is a warrantable piece of *Stoicism*. Besides, this *immodest obstinacy* in opinions, hath made the world a *Babel*; and given birth to disorders, like those of the *Chaos*. The primitive fight of *Elements* doth fitly embleme that of *Opinions*, and those *proverbial contrarieties* may be reconcil'd, as soon as peremptory con-

contenders. That hence grow *Schiſms*, *Heresies*, and anomalies beyond *Arithmetick*, I could wiſh were more difficult to be proved. 'Twere happy for a diſtemper'd Church, if evidence were not ſo near us. 'Tis zeal for *opinions* that hath filled our *Hemiſphere* with ſmoke and darkneſs, and by a dear experience we know the fury of thoſe flames it hath kindled. 'Tis lamentable that *Homo homini* *Demon*, ſhould be a *Proverb* among the Profeſſors of the *Croſs*; and yet I fear it is as veriſiable among them, as of thoſe without the pale of viſible *Chriſtianity*. I doubt we have loſt S. *John's* ſign of *regeneration*: By this we know that we are paſt from death to life, that we love one another, is I fear, to few a ſign of their ſpiritual *reſurrection*. If our Returning Lord, ſhall ſcarce find faith on earth, where will he look for *Charity*? It is a ſtranger this ſide the Region of love, and *bleſſedneſs*; bitter zeal for *opinions* hath conſum'd it. Mutual agreement and indearments was the badge of *Primitive* Believers, but we may be known by the contrary criterion. The union of a *Sect* within it ſelf, is a pitiful *charity*: it's no concord of *Chriſtians*, but a conſpiracy againſt *Chriſt*; and they that love one another, for their *opinionative* concurrences, love for their own ſakes, not their *Lords*: not becauſe they have his *image*, but becauſe they bear one anothers. What a ſtir is there for *Mint*, *Aniſe*, and *Cummin* controversies, while the great practical fundamentals are unſtudyed, unobſerved? What eagernels in the proſecution of *diſciplinarian* uncertainties, when the love of God and our neighbour,

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*neighbour*, those Evangelical unquestionables, are neglected: 'Tis this hath consum'd the nutriment of the great and more necessary Verities, and bred differences that are past any accommodation, but that of the *last dayes* decisions. The sight of that day will resolve us, and make us ashamed of our petty quarrels.

Thus *Opinions* have rent the world asunder, and divided it almost into *indivisibles*. Had *Heraclitus* liv'd now, he had wept himself into *marble*, and *Democritus* would have broke his *spleen*. Who can speak of such fooleries without a *Satyr*, to see aged Infants so quarrel at *put-pin*, and the *doating* world grown child again? How fond are men of a bundle of *opinions*, which are no better then a bagge of *Cherry-stones*? How do they scramble for their *Nuts*, and *Apples*, and how zealous for their petty Victories? Methinks those grave contenders about *opinionative trifles*, look like aged *Socrates* upon his boyes *Hobby-horse*, or like something more *ludicrous*: since they make things their *seria*, which are scarce tolerable in their sportful *intervals*.

(4.) To be confident in *Opinions* is *ill manners* and *immodesty*; and while we are peremptory in our persuasions, we accuse all of *Ignorance* and *Error*, that subscribe not our assertions. The *Dogmatist* gives the lie to all dissenting apprehenders, and proclaims his judgement fittest, to be the *Intellectual Standard*. This is that spirit of immorality, that saith unto dissenters, *Stand off, I am more*

more *Orthodox* than thou art: a vanity more capital than Error. And he that affirms that things muſt needs be as he apprehends them, implies that none can be right till they ſubmit to his *opinions*, and take him for their director.

(5.) *Obſtinacy in Opinions* holds the Dogmatist in the chains of *Error*, without hope of emancipation. While we are confident of *all* things, we are fatally deceiv'd in moſt. He that assures himſelf he never *erres*, will alwayes *erre*; and his preſumptions will render all attempts to inform him, ineffective. We uſe not to ſeek further for what we think we are poſſeſt of; and when falſhood is without ſuſpicion embrac't in the ſtead of truth, and with confidence retained: *Verity* will be rejected as a ſuppoſed Error, and irreconcileably be hated, becauſe it oppoſeth what is truly ſo.

(6.) It betrayes a *poverty* and *narrowneſs* of ſpirit, in the Dogmatical aſſertors. There are a ſet of Pedants that are born to ſlavery. But the more generous ſpirit preſerves the liberty of his judgement, and will not pen it up in an *Opinionative Dungeon*; with an equal reſpect he examines all things, and judgeth as impartially as *Rhadamanth*: When as the Pedant can hear nothing but in favour of the conceits he is amorous of; and cannot ſee, but out of the grates of his *prison*. The determinations of the nobler Mind, are but *temporary*, and he holds them,



but till better evidence repeal his former apprehensions. He won't defile his assent by prostituting it to every conjecture, or stuff his belief, with the luggage of uncertainties. The modesty of his expression renders him *infallible*; and while he only saith, he *Thinks so*, he cannot be deceiv'd, or ever assert a *falsehood*. But the wise Monsieur *Charron* hath fully discours'd of this *Universal liberty*, and sav'd me the labour of enlarging. Upon the Review of my former considerations, I cannot quarrel with his *Motto* : in a sense *Je ne sçay*, is a justifiable *Scepticism*, and not mis-becoming a Candidate of *wisdom*. *Socrates* in the judgement of the *Oracle* knew more then *All men*, who in his own knew the least of *any*.

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AN  
A P O L O G Y  
FOR  
Philosophy.

**I**T is the glory of *Philosophy*, that *Ignorance* and *Phrensie* are it's Enemies; and it may seem less needful to defend *It* against *stupid* and *Enthusiastick Ignorants*. However, lest my discourse should be an advantage in the hands of *phancy* and *folly*; or, which is the greater mischief, lest it should discourage any of the more enlarged spirits from modest enquiries into Nature; I'll subjoyn this brief *Apology*.

If *Philosophy* be *uncertain*, the former will confidently conclude it *vain*; and the later may be in danger of pronouncing the same on their pains, who  
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seek it ; if after all their labour they must reap the wind, meer opinion and conjecture.

But there's a part of Philosophy, that owes no answer to the charge. The *Scepticks*, ΠΑΝΤΑ ΕΣΤΙΝ ΑΟΡΙΣΤΑ, must have the qualification of an exception ; and at least the *Mathematicks* must be priviledg'd from the indictment. Neither yet are we at so deplorable a loss, in the other parts of what we call *Science* ; but that we may meet with what will content ingenuity, at this distance from perfection, though all things will not compleatly satisfy strict and rigid enquiry. *Philosophy* indeed cannot immortalize us, or free us from the inseparable attendants on this state, *Ignorance*, and *Error*. But shall we malign it, because it entitles us not to an *Omniscience* ? Is it just to condemn the *Physitian*, because *Hephestion* dyed ? Compleat knowledge is reserved to gratify our glorified faculties. We are ignorant of some things from our *specificall* incapacity ; of more from our *contracted* depravities : and 'tis no fault in the *spectacles*, that the *blind man* sees not. Shall we, like sullen children, because we have not what we would ; condemn what the benignity of Heaven offers us ? Do what we can, we shall be imperfect in all our attainments ; and shall we scornfully neglect what we may reach, because some things are denied us ? 'Tis madness, to refute the Largesses of divine bounty on *Earth*, because there is not an *Heaven* in them. Shall we not rejoyce at the gladsome approach of day, because it's overcast with a cloud, and follow'd by the  
obscurity

obscurity of night ? and sublunary vouchsafements have their allay of a contrary ; and uncertainty, in another kind, is the annex of all things this side the *Sun*. Even Crowns and Diadems, the most splendid parts of terrene attains, are akin to that, which *to day is in the field*, and *to morrow is cut down*, and *wither'd* : He that enjoy'd them, and knew their worth, excepted them not out of the charge of *Universal Vanity*. And yet the Politician thinks they deserve his pains ; and is not discourag'd at the *inconstancy* of humane affairs, and the *lubricity* of his subject.

He that looks perfection, must seek it above the *Empyreum* ; it is reserv'd for *Glory*. It's that alone, which needs not the advantage of a soyl : Defects seem as necessary to our now-happiness, as their Opposites. The most refulgent colours are the result of light and shadows. *Venus* was never the less beautiful for her Mole. And 'tis for the Majesty of Nature, like the *Persian Kings*, sometimes to cover, and not alway to prostrate her beauties to the *naked view* : yea, they contract a kind of splendour from the seemingly obscuring veil ; which adds to the enravishments of her transported admirers. He alone sees all things with an unshadowed comprehensive *Vision*, who eminently is *All* : Only the God of Nature perfectly knows her ; and light without darkness is the incommunicable claim of him, that dwells in *Light inaccessible*. 'Tis no disparagement to *Philosophy*, that it cannot *Deifie* us, or make good the impossible promise of the *Primitive Deceiver*. It



is that, which he owns above her, that must perfectly remake us after the Image of our Maker.

And yet those raised contemplations of God and Nature, wherewith *Philosophy* doth acquaint us; enlarge and ennoble the spirit, and infinitely advance it above an ordinary level. The soul is alway like the objects of its delight and converse. A *Prince* is as much above a *Peasant* in spirit, as condition: And Man as far transcends the Beasts in largeness of desire, as dignity of Nature and employment. While we only converse with *Earth*, we are like it; that is, unlike our selves: But when engag'd in more refin'd and intellectual entertainments; we are somewhat more, then this narrow circumference of flesh speaks us. And, me thinks, those generous *Vertuosi*, who dwell in an higher Region then other Mortals, should make a middle species between the *Platonical*  $\Theta\epsilon\omicron\iota$ , and common *Humanity*. Even our Age in variety of glorious examples, can confute the conceit, that Souls are equal: And the only instance of that *Constellation* of Illustrious Worthies, which compose *The ROYAL SOCIETY*, is enough to strike dead the opinion of the Worlds decay, and conclude it in it's Prime. Reflecting upon which great persons, me thinks I could easily believe, that Men may differ from one another, as much as *Angels* do from *unbodied Souls*. And perhaps more can be pleaded for such a *Metaphysical Innovation*, then can for a *specifical* diversity among the *Beasts*. Such as these, being in good part freed from the intanglements of  
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*sense* and *body*, are imployed like the spirits above; in contemplating the divine Artifice and wisdom in the works of Nature; a kind of anticipation of the *Æthereal* happiness and imployment. This is one part of the *Life of Souls*.

While we indulge to the *Sensitive* or *Plantal* Life, our delights are common to us with the creatures *below us*: and 'tis likely, they exceed us as much in them, as in the senses their subjects; and that's a poor happiness for Man to aim at, in which Beasts are his Superiours. But those *Mercurial* spirits which were only lent the Earth to shew Men their folly in admiring it; possess delights of a nobler make and nature, which as it were antedate *Immortality*; and, at a humble distance, resemble the joys of the world of *Light and Glory*. The *Sun* and *Stars*, are not the worlds *Eyes*, but *These*: The *Celestial Argus* cannot glory in such an universal view. These out-travel theirs, and their *Monarchs* beams: passing into *Vortexes* beyond their *Light and Influence*; and with an easie twinkle of an Intellectual Eye look into the *Centre*, which is obscur'd from the upper *Luminaries*. This is somewhat like the Image of *Omnipresence*: And what the *Hermetical Philosophy* saith of *God*, is in a sense verifiable of the thus ennobled soul, That its *Centre is every where*, but its *circumference no where*. This is the ΑΛΗΘΙΝΟΣ ΑΝΘΡΩΠΟΣ; and what *Plotinus* calls so, the *divine life*, is somewhat more. Those that live but to the lower *concupiscible*, and relish no delights but *sensual*;



it's by the favour of a *Metaphor*, that we call them *Men*. As *Aristotle* saith of *Brutes*, they have but the *Mimicry* of *Humane*; only some shews and *Apish* imitations of *Humane*; and have little more to justify their Title to Rationality, then those *Mimick Animals*, the supposed *Posterity* of *Cham*: who, had they retain'd the privilege of Speech, which some of the *Fathers* say they own'd before the *Fall*; it may be they would plead their cause with them, and have laid strong claim to a Parity. Such, as these, are *Philosophies* Maligners, who computing the usefulness of all things, by what they bring to their *Barns*, and *Treasures*; stick not to pronounce the most generous contemplations, needless unprofitable subtilities: and they might with as good reason say, that the light of their Eyes was a superfluous provision of Nature, because it fills not their *Bellies*.

Thus the greatest part of miserable Humanity is lost in *Earth*: and, if Man be an *inversed Plant*; these are *inversed Men*; who forgetting that *Sursum*, which Nature writ in their *Foreheads*, take their Roots in this sordid Element. But the *Philosophical soul* is an *inverted Pyramid*; *Earth* hath but a point of this *Æthereal Cone*. *Aquila non captat muscas*, The Royal Eagle flies not but at noble Game; and a young *Alexander* will not play but with Monarchs. He that hath bren cradled in Majesty, and used to Crowns and Scepters; will not leave the Throne to play with Beggars at *Put-pin*, or be fond  
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of *Tops* and *Cherry-stones*: neither will a Spirit that dwells with Stars, dabble in this imputer Mud; or stoop to be a Play-fellow and Copartner in delights with the Creatures, that have nought but *Animal*. And though it be necessitated by its relation to flesh to a Terrestrial converse; yet 'tis like the *Sun*, without contaminating its Beams. For, though the body by a kind of *Magnetism* be drawn down to this *sediment* of universal dreggs; yet the thus impregnate spirit contracts a *Verticity* to objects above the *Pole*: And, like as in a falling Torch, though the grosser Materials hasten to their Element; yet the flame aspires, and, could it master the dulness of its load, would carry it off from the stupid Earth it tends to. Thus do those enobled souls justify *Aristotles* *Νῆς διὰ τοῦ σώματος ὡς διὰ τοῦ σώματος*; and in allayed sense that title, which the Stoicks give it, of *ἀνιμωδία* οὐκ. If we say, they are not in their bodies, but their bodies in them; we have the Authority of the divine *Plato* to vouch us: And by the favour of an easie simile we may affirm them to be to the body, as the light of a Candle to the gross, and sœculent snuff; which, as it is not pent up in it, so neither doth it partake of its stench and impurity. Thus, as the *Roman* Orator elegantly descants, *Erigimur, & latiores fieri videmur; humana despiciamus, contemplantesq; supera & cœlestia, hæc nostra, ut exigua, & minima, contemnimus.*

And yet ther's an higher degree, to which *Philosophy* sublimes us. For, as it teacheth a generous contempt of



what the grovelling desires of *creeping* Mortals Idolize and dote on; so it raiseth us to love and admire an Object, that is as much above terrestrial, as *Infinite* can make it. If *Plutarch* may have credit, the observation of Natures Harmony in the *celestial motions* was one of the first inducements to the belief of a *God*: And a greater then he affirms, that the visible things of the Creation declare him, that made them. What knowledge we have of them, we have in a sense of their Authour. His face cannot be beheld by Creature-Opticks, without the allay of a reflexion; and Nature is one of those mirrors, that represents him to us. And now the more we know of him, the more we love him, the more we are like him, the more we admire him. 'Tis here, that *knowledge wonders*; and there's an *Admiration*, that's not the *Daughter of Ignorance*. This indeed stupidly gazeth at the unwon-*ted effect*: But the Philosophick passion truly admires and adores the supreme *Efficient*. The *wonders* of the Almighty are not seen, but by those that go *down into the deep*. The *Heavens* declare their *Makers Glory*; and *Philosophy theirs*, which by a grateful rebound returns to its *Original source*. The twinkling spangles, the Ornaments of the upper world; lose their beauty and magnificence; while they are but the objects of our narrow'd senses: By them the *half* is not *told us*; and vulgar Spectators see them, but as a confused huddle of petty *Illuminants*. But *Philosophy* doth right to those *immense sphears*, and advantageously represents their Glories, both in the vast-  
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ness of their *proportions*, and regularity of their *motions*. If we would see the wonders of the *Globe* we dwell in; *Philosophy* must rear us above it. The works of God speak forth his mighty praise: A speech not understood, but by those that *know* them. The most Artful melody receives but little tribute of Honour from the *gazing* *beasts*; it requires skill to relish it. The most delicate musical accents of the *Indians*, to us are but *inarticulate* *bummings*; as questionless are ours to their otherwise tuned *Organs*. Ignorance of the Notes and Proportions, renders all *Harmony* unaffecting. A gay Puppet pleaseth children more, then the exactest piece of *unaffected* *Art*: it requires some degrees of *Perfection*, to admire what is truly *perfect*, as it's said to be an advance in Oratory to relish *Cicero*. Indeed the unobservant Multitude, may have some general confus'd apprehensions of a kind of *beauty*, that guilds the outside frame of the Universe: But they are Natures courser wares, that lye on the *stall*, exposed to the transient view of every *common* *Eye*; her choicer *Riches* are lock't up only for the sight of *them*, that will buy at the expence of *sweat* and *Oyl*. Yea, and the visible Creation is far otherwise apprehended by the *Philosophical* *Inquirer*, then the *unintelligent* *Vulgar*. Thus the *Physitian* looks with another *Eye* on the *Medicinal* *beerb*, then the *grazing* *Oxe*, which swoops it in with the common *grass*: and the *Swine* may see the *Pearl*, which yet he values but with the *ordinary* *muck*; it's otherwise pris'd by the skilful *Jeweller*.



And from this last Article, I think, I may conclude the charge, which hot-brain'd folly layes in against *Philosophy*; that it leads to *Irreligion*, frivolous and vain. I dare say, next after the *divine Word*, it's one of the best friends to *Piety*. Neither is it any more justly accountable for the impious irregularities of some, that have paid an homage to its shrine; then *Religion* it self for the extravagances both *opinionative* and *practick* of high pretenders to it. It is a vulgar conceit, that *Philosophy* holds a confederacy with *Atheism* it self, but most *injurious*: for nothing can better antidote us against it: and they may as well say, that *Physitians* are the only *murtherers*. A *Philosophick Atheist*, is as good sense as a *Divine one*: and I dare say the Proverb, *Ubi tres Medici, duo Athei*, is a Scandal. I think the Original of this conceit might be, That the Students of Nature, conscious to her more *cryptick* wayes of working, resolve many strange effects into the nearer efficiency of *second causes*; which common *Ignorance* and *Superstition* attribute to the Immediate causality of the *first*: thinking it to derogate from the Divine Power, that any thing which is above their apprehensions, should not be reckon'd above *Natures* activity; though it be but his Instrument, and works nothing but as impower'd from him. Hence they violently declaim against all, that will not acknowledge a *Miracle* in every extraordinary effect, as setting Nature in the Throne of *God*; and so it's an easie step to say, they deny him. When as indeed,

deed, Nature is but the chain of second causes; and to suppose second causes without a first, is beneath the *Logic* of *Gotham*. Neither can they (who, to make their reproach of Philosophy more *authentick*, alledge the Authority of an *Apostle* to conclude it *vain*) upon any whit more reasonable terms make good their charge; since this allegation stands in force but against its *abuse*, corrupt *sophistry*, or *traditionary impositions*, which lurk'd under the mask of so serious a name: at the worst, the Text will never warrant an universal conclusion any more; then that other, where the *Apostle* speaks of *silly women*, (who yet are the most rigid urgers of this) can justly blot the sex with an unexceptionable note of *infamy*.

Now, what I have said here in this short *Apology* for *Philosophy*, is not so strictly verifiable of any that I know, as the *Cartesian*. The entertainment of which among truly ingenuous unpossess'd *Spirits*, renders an after-commendation superfluous and impertinent. It would require a wit like its Authors, to do it right in an *Encomium*. The strict Rationality of the *Hypothesis* in the main, and the critical coherence of its parts, I doubt not but will bear it down to Posterity with a *Glory*, that shall know no term, but the *Universal ruins*. Neither can the *Pedantry*, or prejudice of the present Age, any more obstruct its motion in that *supreme sphere*, wherein its desert hath plac'd it; then can the howling Wolves pluck *Cynthia* from her *Orb*; who regardless of their  
noise,



noise, securely glides through the undisturbed *Æther*.  
Censure here will disparage it self, not it. He that ac-  
cuseth the *Sun* of *darkness*, shames his own *blind eyes*  
not its *light*. The barking of *Cynicks* at that *Hero*'s  
Chariot-wheels, will not sully the glory of his *Triumphs*.  
But I shall supersede this *endless* attempt: *Sun-beams* be-  
commend themselves.

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*F I N I S.*

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